

# Lexington-Fayette Urban County Government Lexington, Kentucky

		Horse Capital of the World	
Division of Centra	Purchasin	g Date of Issue: April 12	, 2019
INVITATION 1 West Hickman	O BID #	#44-2019 Exterior Painting of CMU Buildings &	Steel Hoist Rails at
<b>Bid Opening Date:</b> Address:	<b>April 26,</b> 200 East	<b>2019</b> Main Street, 3 <sup>rd</sup> Floor, Room 338, Lexington, Kentucky 40507	Opening Time: 2:00 PM
Type of Bid:	Firm Bid	, , , , , , , , , , , , , , , , , , , ,	
Pre Bid Meeting: N/ Address:	A	Pre Bid Tim	e:
Sealed bids will be reprevailing local time of	ceived in the n <b>04/26/20</b>	e office of the Division of Central Purchasing, 200 East Main Street, Lex 119. Bids must be <u>received</u> by the above-mentioned date and time. Ma	ington, Kentucky, until <b>2:00 PM</b> iled bids should be sent to:
		Division of Central Purchasing 200 East Main Street, Room 338 Lexington, KY 40507, (859) 258-3320	
must be signed and ha	ve the comp	anty Government assumes no responsibility for bids that are not addressed to the Division of Central Purchasing by the stated time and pany name and address, bid invitation number, and the name of the bid and associated fees to the point of delivery located at: 645 West	<b>d date will be rejected.</b> All bids on the outside of the envelope.
Bid Specifica	ations	Check One:  Evcentions to Rid Considerations - 5	
Drogues and Court		Exceptions to Bid Specifications. Exceptions shall be itemized and attached to bid proposal submitted.	Proposed Delivery:3days after acceptance of bid.
and services and also	<b>Usage</b> —The to make pay	e Lexington-Fayette Urban County Government may be using Procureme yments. Will you accept Procurement Cards?	days after acceptance of bid.
and services and also	<u>Usage</u> —The to make pay	attached to bid proposal submitted.  e Lexington-Fayette Urban County Government may be using Procureme	days after acceptance of bid.

#### E-Mail Address

The Affidavit In this bid must be completed before your firm can be considered for award of this contract.

	AFFIDALGT
p∈	Comes the Affiant, Paul Carter WinnerCircle Painting and after being first duly sworn under penalty of erjury as follows:
1.	His/her name is Paul Larter and he/she is the individual submitting the bid or is the
	authorized representative of Winner's hircle Painting
	the entity submitting the bid (hereinafter referred to as "Bidder")
2.	Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.
3.	Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.
4.	Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.
5.	Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.
ō.	Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."
7.	Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.
	Further, Affiant sayeth naught.
<b>5</b> T/	ATE OF KENTUCKY
0	UNTY OF Jess AMIUL
У <sub>-</sub> -	The foregoing instrument was subscribed, sworn to and acknowledged before me  Paul Carter on this the 26 day  Apr. 1 2019
	My Commission expires: Sept 14 2022  MICHAEL HARVESS NOTARY PUBLIC, STATE AT LARGE
/C	ase refer to Section II. Bid Conditions, Item "U" prior to completing this form

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#### I. GREEN PROCUREMENT

#### A. ENERGY

The Lexington-Fayette Urban County Government is committed to protecting our environment and being fiscally responsible to our citizens.

The Lexington-Fayette Urban County Government mandates the use of Energy Star compliant products if they are available in the marketplace (go to <a href="https://www.Energystar.gov">www.Energystar.gov</a>). If these products are available, but not submitted in your pricing, your bid will be rejected as non-compliant.

ENERGY STAR is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

#### Key Benefits

These products use 25 to 50% less energy Reduced energy costs without compromising quality or performance Reduced air pollution because fewer fossil fuels are burned Significant return on investment Extended product life and decreased maintenance

#### **B. GREEN SEAL CERTIFIED PRODUCTS**

The Lexington-Fayette Urban County Government is also committed to using other environmentally products that do not negatively impact our environment. Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education.

Go to <a href="www.Greenseal.org">www.Greenseal.org</a> to find available certified products. These products will have a reduced impact on the environment and on human health. The products to be used must be pre-approved by the LFUCG prior to commencement of any work in any LFUCG facility. If a Green Seal product is not available, the LFUCG must provide a signed waiver to use an alternate product. Please provide information on the Green Seal products being used with your bid response.

#### C. GREEN COMMUNITY

The Lexington-Fayette Urban County Government (LFUCG) serves as a principal, along with the University of Kentucky and Fayette County Public Schools, in the Bluegrass Partnership for a Green Community. The Purchasing Team component of the Partnership collaborates on economy of scale purchasing that promotes and enhances environmental initiatives. Specifically, when applicable, each principal is interested in obtaining best value products and/or services which promote environment initiatives via solicitations and awards from the other principals.

If your company is the successful bidder on this Invitation For Bid, do you agree to extend the same product/service pricing to the other principals of the Bluegrass Partnership for a Green Community (i.e. University of Kentucky and Fayette County Schools) if requested?

Yes	$\overline{\chi}$	No
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#### II. Bid Conditions

- No bid may be withdrawn for a period of sixty (60) days after the date and time set for opening.
- B. No bid may be altered after the date and time set for opening. In the case of obvious errors, the Division of Central Purchasing may permit the withdrawal of a bid. The decision as to whether a bid may be withdrawn shall be that of the Division of Central Purchasing.
- C. Acceptance of this proposal shall be enactment of an Ordinance by the Urban County Council.
- D. The bidder agrees that the Urban County Government reserves the right to reject <u>any</u> and <u>all</u> bids for either fiscal or technical reasons, and to award each part of the bid separately or all parts to one vendor.

- E. Minor exceptions may not eliminate the bidder. The decision as to whether any exception is minor shall be entirely that of the head of the requisitioning Department or Division and the Director of the Division of Central Purchasing. The Urban County Government may waive technicalities and informalities where such waiver would best serve the interests of the Urban County Government.
- F. Manufacturer's catalogue numbers, trade names, etc., where shown herein are for descriptive purposes and are to guide the bidder in interpreting the standard of quality, design, and performance desired, and shall not be construed to exclude proposals based on furnishing other types of materials and/or services. However, any substitution or departure proposed by the bidder must be clearly noted and described; otherwise, it will be assumed that the bidder intends to supply items specifically mentioned in this Invitation for Bids.
- G. The Urban County Government may require demonstrations of the materials proposed herein prior to acceptance of this proposal.
- H. Bids must be submitted on this form and must be signed by the bidder or his authorized representative. Unsigned bids will not be considered.
- I. Bids must be submitted prior to the date and time indicated for opening. Bids submitted after this time will not be considered.
- J. All bids mailed must be marked on the face of the envelope:

# "Bid on #44-2019 Exterior Painting of CMU Buildings & Steel Hoist Rails at West Hickman WWTP"

and addressed to:

Division of Central Purchasing 200 East Main Street, Room 338 Lexington, Kentucky 40507

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

- K. Bidder is requested to show both unit prices and lot prices. In the event of error, the unit price shall prevail.
- L. A certified check or Bid Bond in the amount of <u>5</u> percent of the bid price must be attached hereto for bids greater than \$50,000. This check must be made payable to the Lexington-Fayette Urban County Government, and will be returned when the material and/or services specified herein have been delivered in accordance with specifications. In the event of failure to perform within the time period set forth in this bid, it is agreed the certified check may be cashed and the funds retained by the Lexington-Fayette Urban County Government as liquidated damages. Checks of unsuccessful bidders will be returned when the bid has been awarded.
- M. The delivery dates specified by bidder may be a factor in the determination of the successful bidder.
- N. Tabulations of bids received may be mailed to bidders. Bidders requesting tabulations must enclose a stamped, self-addressed envelope with the bid.
- O. The Lexington-Fayette Urban County Government is exempt from Kentucky Sales Tax and Federal Excise Tax on materials purchased from this bid invitation. Materials purchased by the bidder for construction projects are not tax exempt and are the sole responsibility of the bidder.
- P. All material furnished hereunder must be in full compliance with OSHA regulations.
- Q. If more than one bid is offered by one party, or by any person or persons representing a party, all such bids shall be rejected.
- R. Signature on the face of this bid by the Bidder or his authorized representative shall be construed as acceptance of and compliance with all terms and conditions contained herein.
- S. The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, creed, national origin, sex or age, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment

opportunity shall apply to every aspect of its employment policies and practices.

T. The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;
- (2) The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;
- (3) The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and
- (4) The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.

#### The Act further provides:

KRS 45.610. Hiring minorities - Information required

- (1) For the length of the contract, each contractor shall hire minorities from other sources within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.
- (2) Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.

KRS 45.620. Action against contractor - Hiring of minority contractor or subcontractor

- (1) If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.
- (2) If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.
- (3) The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.

KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.

#### KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

It is recommended that all of the provisions above quoted to be included as <u>special conditions</u> in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

U. Any party, firm or individual submitting a proposal pursuant to this invitation must be in compliance with the requirements of the Lexington-Fayette Urban County Government regarding taxes and fees before they can be considered for award of this invitation and must maintain a "current" status with regard to those taxes and fees throughout the term of the contract. The contractor must be in compliance with Chapter 13 from the Code of Ordinances of the Lexington-Fayette Urban County Government. The contractor must be in compliance with Ordinance 35-2000 pursuant to contractor registration with the Division of Building Inspection. If applicable, said business must have a Fayette County business license.

Pursuant to KRS 45A.343 and KRS 45A.345, the contractor shall

- (1) Reveal any final determination of a violation by the contractor within the previous five year period pursuant to KRS Chapters 136 (corporation and utility taxes), 139 (sales and use taxes), 141 (income taxes), 337 (wages and hours), 338 (occupational safety and health of employees), 341 (unemployment and compensation) and 342 (labor and human rights) that apply to the contractor; and
- (2) Be in continuous compliance with the above-mentioned KRS provisions that apply to the contractor for the duration of the contract.

A contractor's failure to reveal the above or to comply with such provisions for the duration of the contract shall be grounds for cancellation of the contract and disqualification of the contractor from eligibility for future contracts for a period of two (2) years.

V. Vendors who respond to this invitation have the right to file a notice of contention associated with the bid process or to file a notice of appeal of the recommendation made by the Director of Central Purchasing resulting from this invitation.

Notice of contention with the bid process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his/her contention with the bid process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Central Purchasing shall promptly respond in writing findings as to the compliance with bid processes. If, based on this review, a bid process irregularity is deemed to have occurred the Director of Central Purchasing will consult with the Commissioner of Finance, the Chief Administrative Officer and the Department of Law as to the appropriate remedy.

Notice of appeal of a bid recommendation must be filed within 3 business days of the bid recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Central Purchasing shall in writing, affirm or withdraw the recommendation.

#### **LFUCG Non-Appropriation Clause**

Contractor acknowledges that the LFUCG is a governmental entity, and the contract validity is based upon the availability of public funding under the authority of its statutory mandate.

In the event that public funds are unavailable and not appropriated for the performance of the LFUCG's obligations under this contract, then this contract shall automatically expire without penalty to the LFUCG thirty (30) days after written notice to Contractor of the unavailability and non-appropriation of public funds. It is expressly agreed that the LFUCG shall not activate this non-appropriation provision for its convenience or to circumvent the requirements of this contract, but only as an emergency fiscal measure during a substantial fiscal crisis, which affects generally its governmental operations.

In the event of a change in the LFUCG's statutory authority, mandate and mandated functions, by state and federal legislative or regulatory action, which adversely affects the LFUCG's authority to continue its obligations under this contract, then this contract shall automatically terminate without penalty to the LFUCG upon written notice to Contractor of such limitation or change in the LFUCG's legal authority.

SPECIAL INSTRUCTIONS TO THE BIDDER

(DO NOT SUBMIT PERFORMANCE SECURITY WITH BID)

#### **EQUAL OPPORTUNITY AGREEMENT**

#### Standard Title VI Assurance

The Lexington Fayette-Urban County Government, (hereinafter referred to as the "Recipient") hereby agrees that as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation, it will comply with Title VI of the Civil Rights Act of 1964, 78Stat.252, 42 U.S.C. 2000d-4 (hereinafter referred to as the "Act"), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, (49 CFR, Part 21) Nondiscrimination in Federally Assisted Program of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964 (hereinafter referred to as the "Regulations") and other pertinent directives, no person in the United States shall, on the grounds of race, color, national origin, sex, age (over 40), religion, sexual orientation, gender identity, veteran status, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance from the U.S. Department of Transportation, including the Federal Highway Administration, and hereby gives assurance that will promptly take any necessary measures to effectuate this agreement. This assurance is required by subsection 21.7(a) (1) of the Regulations.

#### The Law

- Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.
- Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.
  - Section 503 of the Rehabilitation Act of 1973 states:
    - The Contractor will not discriminate against any employee or applicant for employment because of physical or mental disability.
- Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.
- Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

#### **Bidders**

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, veteran status, disability and age.

Signature

Name of Business

Lircle Painting

#### **GENERAL PROVISIONS OF BID CONTRACT**

By signing the below, bidder acknowledges that it understands and agrees with the following provisions related to its bid response and the provision of any goods or services to LFUCG upon selection by LFUCG pursuant to the bid request:

- 1. Bidder shall comply with all Federal, State & Local regulations concerning this type of service or good. All applicable state laws, ordinances and resolutions (including but not limited to Section 2-33 (Discrimination due to sexual orientation or gender identity) and Chapter 13 (Licenses and Regulations) of the Lexington-Fayette Urban County Government Code of Ordinances, and Resolution No. 484-17 (Minority, Women, and Veteran-Owned Businesses)) and the regulations of all authorities having jurisdiction over the project shall apply to the contract, and shall be deemed to be incorporated herein by reference.
- 2. Failure to submit ALL forms and information required by LFUCG may be grounds for disqualification.
- 3. Addenda: All addenda and IonWave Q&A, if any, must be considered by the bidder in making its response, and such addenda shall be made a part of the requirements of the bid contract. Before submitting a bid response, it is incumbent upon bidder to be informed as to whether any addenda have been issued, and the failure of the bidder to cover any such addenda may result in disqualification of that response.
- 4. Bid Reservations: LFUCG reserves the right to reject any or all bid responses, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
- 5. Liability: LFUCG is not responsible for any cost incurred by bidder in the preparation of its response.
- 6. Changes/Alterations: Bidder may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the bid response, and received by LFUCG prior to the scheduled closing time for receipt of bids, will be accepted. The bid response when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of bid response".
- 7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from any bidder.
- 8. Bribery Clause: By his/her signature on its response, bidder certifies that no employee of his/hers, any affiliate or subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.
- 9. Additional Information: While not necessary, the bidder may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the bid response. Additional documentation shall not serve as a substitute for other documentation which is required by the LFUCG to be submitted with the bid response.
- 10. Ambiguity, Conflict or other Errors: If a bidder discovers any ambiguity, conflict, discrepancy, omission or other error in the bid request of LFUCG, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
- 11. Agreement to Bid Terms: In submitting its bid response, the bidder agrees that it has carefully examined the specifications and all provisions relating to LFUCG's bid request, including but not limited to the bid contract. By submission of its bid response, bidder states that it understands the meaning, intent and requirements of LFUCG's bid request and agrees to the same. The successful bidder shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to bidder shall be authorized for services, expenses, or goods reasonably covered under these provisions that the bidder omits from its bid response.
- 12. Cancellation: LFUCG may unilaterally terminate the bid contract with the selected bidder(s) at any time, with or without cause, by providing at least thirty (30) days advance written notice unless a different advance written notice period is negotiated prior to contract approval. Payment for services or goods received prior to termination

shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

- 13. Assignment of Contract: The selected bidder(s) shall not assign or subcontract any portion of the bid contract with LFUCG without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
- 14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this bid proposal or bid contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
- 15. Authority to do Business: Each bidder must be authorized to do business under the laws of the Commonwealth of Kentucky and must be in good standing and have full legal capacity to provide the goods or services specified in the bid proposal. Each bidder must have all necessary right and lawful authority to submit the bid response and enter into the bid contract for the full term hereof including any necessary corporate or other action authorizing the bidder to submit the bid response and enter into this bid contract. If requested, the bidder will provide LFUCG with a copy of a corporate resolution authorizing this action and/or a letter from an attorney confirming that the proposer is authorized to do business in the Commonwealth of Kentucky. All bid responses must be signed by a duly authorized officer, agent or employee of the bidder.
- 16. Governing Law: This bid request and bid contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this matter, the bidder agrees that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division and that the bidder expressly consents to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to these matters or any rights or obligations arising thereunder.
- Ability to Meet Obligations: Bidder affirmatively states that there are no actions, suits or proceedings of any kind pending against bidder or, to the knowledge of the bidder, threatened against the bidder before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of bidder to perform its obligations under this bid response or bid contract, or which question the legality, validity or enforceability hereof or thereof.
- 18. Price Discrepancy: When applicable, in case of price discrepancy, unit bid price written in words will prevail followed by unit price written in numbers then total amount bid per line item.
- 19. Bidder understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Bidder is an independent contractor at all times related to the bid response or bid contract.
- 20. Contractor [or Vendor or Vendor's Employees] will not appropriate or make use of the Lexington-Fayette Urban County Government (LFUCG) name or any of its trade or service marks or property (including but not limited to any logo or seal), in any promotion, endorsement, advertisement, testimonial or similar use without the prior written consent of the government. If such consent is granted LFUCG reserves the unilateral right, in its sole discretion, to immediately terminate and revoke such use for any reason whatsoever. Contractor agrees that it shall cease and desist from any unauthorized use immediately upon being notified by LFUCG.
- 21. If any term or provision of this bid contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.

Signature

Date

#### **WORKFORCE ANALYSIS FORM**

Name of Organization: Dinners Lincle Painting

Categories	Total	(N Hisp	nite lot panic patino)	6	oanic or tino	Afrid Ame (N Hisp	ck or can- rican lot panic atino	Haw Ot Pa Isla (N	ative vailan nd ther cific nder lot oanic	(N Hisp	ian lot eanic atino	Indi Ala Nativ Hispa	erican an or skan re (not anic or tino	m ra (i His	vo or core ces Not canic atino	Т	otal
		M	F	М	F	M	F	M	F	М	F	M	F	M	F	М	F
Administrators	1	1														1	
Professionals		5				1										6	
Superintendents																	
Supervisors																	
Foremen																	
Technicians																	
Protective Service																	
Para-Professionals																	
Office/Clerical																	
Skilled Craft		5		6	6	1										12	7
Service/Maintenance																	
Total:																19	7

Prepared by: Have Courted Commercial Account Manger Date: 12619

(Name and Title)

Revised 2015-Dec-15

# RISK MANAGEMENT PROVISIONS INSURANCE AND INDEMNIFICATION

#### **INDEMNIFICATION AND HOLD HARMLESS PROVISION**

- (1) It is understood and agreed by the parties that Contractor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Contractor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "CONTRACTOR") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- CONTRACTOR shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by CONTRACTOR's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the CONTRACTOR; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.
- (5) LFUCG is a political subdivision of the Commonwealth of Kentucky. CONTRACTOR acknowledges and agrees that LFUCG is unable to provide indemnity or otherwise save, hold harmless, or defend the CONTRACTOR in any manner.

#### FINANCIAL RESPONSIBILITY

BIDDER/CONTRACTOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

#### **INSURANCE REQUIREMENTS**

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AAND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED

HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

#### Required Insurance Coverage

BIDDER/CONTRACTOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect LFUCG against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by CONTRACTOR. The cost of such insurance shall be included in any bid:

Coverage	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$100,000.00
Excess Liability	\$1 million

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky (DOI). LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Products and Completed Operations endorsement or Premises and Operations Liability endorsement unless deemed not to apply by LFUCG.
- d. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- e. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

#### Renewals

After insurance has been approved by LFUCG, evidence of renewal of an expiring policy must be submitted to LFUCG, and may be submitted on a manually signed renewal endorsement form. If

the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

#### Deductibles and Self-Insured Programs

IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT. DIVISION OF MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/CONTRACTOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. BIDDER/CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/CONTRACTOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- Actuarial funding reports or retained losses.
- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

#### Safety and Loss Control

CONTRACTOR shall comply with all applicable federal, state, and local safety standards related to the performance of its works or services under this Agreement and take necessary action to protect the life, health and safety and property of all of its personnel on the job site, the public, and LFUCG.

#### Verification of Coverage

BIDDER/CONTRACTOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

#### Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

#### **DEFAULT**

BIDDER/CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/CONTRACTOR for any such insurance premiums purchased, or suspending or terminating the work.

00470806

# BID SPECIFICATIONS FOR EXTERIOR PAINTING OF CMU BUILDINGS AND STEEL HOIST RAILS AT WEST HICKMAN CREEK WWTP

#### **GENERAL**

- 1. The successful bidder will provide all materials, equipment and labor necessary to perform surface preparation and painting of four (4) existing CMU buildings and steel hoist rails at the West Hickman Creek Wastewater Treatment Plant which is owned and operated by the Lexington Fayette Urban County Government Division of Water Quality.
- 2 The four (4) buildings to be painted are: Building #13 (SO2), Building #14 (New Penthouse), Building #12 (CL2), and Building #3 (Solids Processing). The steel hoist rails to be painted are located at Buildings #13, 12, and #3.
- The successful Bidder is responsible for disposal of all material/product that may be removed and/or used during the surface preparation and/or painting activities.
- 4. Preference is for Bidder/Contractor to have previous experience with same or similar type projects. At a minimum, Bidder/Contractor shall have previous experience working within and/or around wastewater treatment facilities. It is the responsibility of the Bidder/Contractor to provide documentation of previous similar work type experience and/or familiarity of working within wastewater treatment facilities with their respective bid submittals. Failure to provide requested documentation may result in rejection of bid submittal.
- 5. It is recommended that each potential Bidder schedule a site visit to view and/or evaluate current building conditions and identify work locations and/or conditions that may or may not have an impact on bid submittal.

Site visits must be scheduled through one of the following:

Jim Worten: (859)280-8651 Mike Foster: (859)280-8658

Melvin Clemmons: (859)280-8652

- 6. Product Data Sheet(s) for specified painting products are provided within Bid Specification(s).
- 7. Owner to select color for CMU and steel hoist rails.

#### SCOPE OF WORK

#### Existing Exterior CMU Substrate (All Specified Buildings) and Concrete Ceiling of SO2 Building

- Pressure wash with 4000psi water pressure with oscillating tip to remove all loose paint and contaminants
- Protect adjacent surfaces not receiving coating with plastic, drop cloths, etc...
- Spot block fill with Carboline Sanitile® 100 (product data sheet provided) or Owner approved equal, any bare CMU after washing process per manufacturer's recommendations (Note: 2' X 2' sample to be done prior to full overcoat to approve color and test adhesion).
- Apply two (2) coats of Carbocrylic® 3359 (product data sheet provided) or Owner approved equal, per manufacturer's recommendation to all existing block and concrete ceiling as indicated.
- Touch up and clean up.

## 2. Existing Steel Hoist Substrates (Buildings #13, 12 and 3 only)

- Pressure wash with 4000psi water pressure with oscillating tip to remove loose rust and contaminants.
- Power tool all steel (per SSPC-SP3) to prepare existing steel
- Protect adjacent surfaces not receiving coating with plastic, drop cloths, etc...
- Apply one full coat of Carboline Rustbond® (product data sheet provided) or Owner approved equal, to all steel per manufacturer's recommendations.
- Apply two (2) full coats of Carbothane® 133HB (product data sheet provided) or Owner approved equal, to all steel per manufacturer's recommendations.
- Touch up and clean up.
- 3. Work must be scheduled with West Hickman Creek WWTP Superintendent.

Item	Description	Bid Price
Exterior painting of CMU buildings and steel hoist rails	Preparation of surface(s), paint surface(s) with color choice(s) of Owner and clean up	129,500

#### SPECIAL INSTRUCTIONS TO BIDDER:

 For bidding questions contact Brian Marcum, Division of Central Purchasing, @ 859-258-3325.

#### Protective & Marine Coatings

PRODUCT DATA SHEET



### MACROPOXY® 646 FAST CURE EPOXY

Revised: April 11, 2019

#### PRODUCT DESCRIPTION

MACROPOXY 646 Fast Cure Epoxy is a high solids, high build, fast drying, polyamide epoxy designed to protect steel and concrete in industrial exposures. Ideal for maintenance painting and fabrication shop applications. The high solids content ensures adequate protection of sharp edges, corners, and welds. This product can be applied directly to marginally prepared steel surfaces.

#### INTENDED USES

- · Recommended for marine applications, refineries, offshore platforms, fabrication shops, chemical plants, tank exteriors, power plants, water treatment plants, and mining and minerals industry
- Mill White and Black are acceptable for immersion use for salt water and fresh water, not acceptable for potable water

#### PRODUCT DATA Finish: Semi-Gloss Average Drying Times @ 7.0 mils (175 microns) wet: Mill White, Black and a wide range of colors available through tinting 35°F (1.7°C) 77°F (25°C) Colors: 100°F (38°C) 50% RH 50% RH 50% RH Touch: 4-5 hours 2 hours 1.5 hours Volume Solids: 72% ± 2%, mixed, Mill White 4.5 hours Handle: 48 hours 8 hours Unreduced: <250 g/L; 2.08 lb/gal Reduced 10%: <300 g/L; 2.50 lb/gal VOC (mixed): Recoat: minimum: 48 hours 8 hours 4.5 hours Mix Ratio: 1:1 by volume maximum: 1 year 1 year 1 year Typical Thickness: Cure to service: atmospheric: 10 days 7 days 4 days Recommended Spreading Rate per coat: immersion: 14 days 7 days 4 days Minimum Maximum Average Drying Times as intermediate @ 5.0 mils (125 microns) wet: Wet mils (microns) 7.0 (175) 13.5 (338) Dry mils (microns) 5.0\* (125) 10.0 (250) 115 (2.9) 230 (5.8) Touch: 3 hours 1 hour ~Coverage sq ft/gal (m²/L) 1 hour Theoretical coverage sq ft/gal Handle: 48 hours 4 hours 2 hours 1152 (28.2) (m2/L) @ 1 mil / 25 microns dft Recoat: \*May be applied at 3.0-10.0 mils (75-250 microns) dft as an minimum: 16 hours 4 hours 2 hours intermediate in a multicoat system. maximum: 1 year 1 year 1 year NOTE: Brush or roll application may require multiple coats to If maximum recoat time is exceeded, abrade surface before recoating. achieve maximum film thickness and uniformity of appearance. Drying time is temperature, humidity, and film thickness dependent. Shelf Life: 36 months, unopened Paint temperature must be 40°F (4.5°C) minimum. Store indoors at 40°F (4.5°C) to 110°F (43°C). Pot Life: 10 hours 4 hours 2 hours Sweat-in-time: 30 minutes 30 minutes 15 minutes

Flash Point: 91°F (33°C), TCC, mixed

Reducer/Clean Up: Reducer #15 or Reducer #58 (California) Reducer #111 or Oxsol 100

12.9 ± 0.2 lb/gal; 1.55 Kg/L, mixed, may Weight:

vary by color

#### SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

#### Minimum recommended surface preparation:

Iron & Steel:

Atmospheric: SSPC-SP2/3/ ISO8501-1:2007 St 2 or SSPC-SP WJ-3 / NACE WJ-3L

Immersion: SSPC-SP10 / NACE 2/ ISO8501-1:2007 Sa 2.5, 2-3 mil (50-75 micron) profile or

SSPC-SP WJ-2/NACE WJ-2L

Aluminum & Galvanizing: SSPC-SP1

Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R CSP 1-3 Concrete & Masonry:

Immersion: SSPC-SP13/NACE 6-4.3.1

Ref: 1101-1

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#### Protective & Marine Coatings

PRODUCT DATA SHEET



# MACROPOXY® 646

FAST CURE EPOXY

#### APPLICATION

## Airless Spray\* Filter 60 mesh Reduction As needed up to 10% by volume

#### Conventional Spray\*

Gun	DeVilbiss MBC-510
Fluid Tip	F
AIF NOZZIE	.704
Atomization Dragoure	CO CE: // / / / E U

Atomization Pressure.....60-65 psi (4.1-4.5 bar) Fluid Pressure......10-20 psi (0.7-1.4 bar)

#### Brush\*

Brush......Nylon/Polyester or Natural Bristle

#### Roller\*

Cover ......3/8" woven with solvent resistant core

#### Plural Component Spray .. Acceptable

\*Reduction......As needed up to 10% by volume

If specific application equipment is not listed above, equivalent equipment may be substituted.

#### RECOMMENDED SYSTEMS

(125-250)

Dry Film Thi	ickness / ct.	Mils	(Microns)
1 Ct. Zind	<b>nic Zinc Primer, Atmosphe</b> c Clad IV (85) cropoxy 646	eric 3.0-5.0 5.0-10.0	(75-125) (125-250)
Steel, Inorg 1 Ct. Zind 1 Ct. Mad	anic Zinc Primer, Atmospi c Clad II (85) cropoxy 646	<b>1eric</b> 2.0-4.0 5.0-10.0	(50-100) (125-250)
1 Ct. Mac	nic Zinc/Epoxy/Urethane T c Clad IV (85) propoxy 646 plon 7300	opcoat 3.0-5.0 3.0-10.0 2.0-4.0	(75-125) (75-250) (50-100)
1 Ct. Zinc	anic Zinc/Epoxy/Urethane : Clad II (85) :ropoxy 646 olon 7300	Topcoat 2.0-4.0 3.0-10.0 2.0-4.0	(50-100) (75-250) (50-100)
I Ct. Zinc	<b>lc Zinc/Epoxy/Polysiloxane</b> : Clad IV (85) ropoxy 646 r-Loxane 800	Topcoat, A 3.0-5.0 3.0-10.0 2.0-4.0	tmospheric (75-125) (75-250) (50-100)

The systems listed above are representative of the product's use, other systems may be appropriate.

Concrete/Masonry, Smooth, Immersion & Atmospheric 2 Cts. Macropoxy 646 5.0-10.0 (125-

#### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS. EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

#### **APPLICATION CONDITIONS**

Temperature: Air: 35°F (1.7°C) minimum, 120°F (49°C) maximum Surface\*: 35°F (1.7°C) minimum, 250°F (120°C) maximum Material: 40°F (4.5°C) minimum At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

\*When spraying a surface above 120°F (49°C), reduce material 10% with Reducer #100, R7K100. Spray apply only. Product will produce an orange peel appearance when applied at elevated temperatures.

#### **APPROVALS**

Suitable for use in USDA inspected facilities

- Acceptable for use in Canadian Food Processing facilities, categories: D1, D2, D3 (Confirm acceptance of specific part numbers/rexes with your SW Sales Representative) Conforms to AVWVA D102 OCS #5

Conforms to MPI # 108

- This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant and DOE nuclear facilities\*
- Meets Class A requirements for Slip Coefficient, 0.36 @ 6 mils / 150 microns dft (Mill White only)
- Nuclear qualifications are NRC license specific to the facility

#### **ADDITIONAL NOTES**

Tint Part A with Maxitoners at 150% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Tinting is not recommended for immersion service.

Quik-Kick Epoxy Accelerator is acceptable for use. See data page

Acceptable for concrete floors.

When spraying a surface above 120°F (49°C), reduce material 10% with Reducer #100. Spray apply only. Product will produce an orange peel appearance when applied at elevated temperatures.

Topcoating: It is recommended to apply a thinned-down, low wet film thickness mist coat over zinc rich primers to help avoid outgassing. Allow it to tack up and seal the surface. Then apply a full wet film thickness coat as directed.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

#### **HEALTH AND SAFETY**

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

#### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company, Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Sheet.

Ref: 1101-1

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# MACROPOXY® 646 FF FLAKE FILLED EPOXY

PART A PART B

B58A604 B58V600

GRAY HARDENER

Revised: April 11, 2019

#### PRODUCT INFORMATION

4.59

#### **PRODUCT DESCRIPTION**

MACROPOXY 646 FF is a high solids, high build, fast drying, micaceous iron oxide filled polyamide epoxy designed to protect steel and concrete in industrial exposures. Ideal for maintenance painting and fabrication shop applications. This flake filled coating ensures adequate protection of sharp edges, corners, and welds. This product can be applied directly to marginally prepared steel

- Chemical resistant Low odor

- Abrasion resistant Outstanding application properties Excellent edge protection

#### PRODUCT CHARACTERISTICS

Finish: Semi-Gloss

Color: Gray

Volume Solids: 72% ± 2%, mixed Mill White Weight Solids: Mill White 85% ± 2%, mixed

VOC (EPA Method 24): Unreduced: Reduced 5%: <250 g/L; 2.08 lb/gal <300 g/L; 2.50 lb/gal

Mix Ratio: 1:1 by volume

	Recommended Spre	ading I	Rate pe	r coat:			
	Minimum Maximum						
	Wet mils (microns)	7.0	(175)	13.5	(338)		
	Dry mils (microns)	5.0*	(125)	10.0*	(250)		
	~Coverage sq ft/gal (m²/L)	116	(2.8)	232	(5.7)		
ı	Theoretical coverage so ft/gal		, ,		` '		

(m²/L) @ 1 mil / 25 microns dft **1152** (28.2)

See Performance Tips section NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 7.0 mils wet (175 microns):							
	@ 35°F/1.7°C	@ 77°F/25°C	@ 100°F/38°C				
		50% RH					
To touch:	4-5 hours	2 hours	1.5 hours				
To handle:	48 hours	8 hours	4.5 hours				
To recoat:							
minimum:	48 hours	8 hours	4.5 hours				
maximum:	1 year	1 year	1 year				
Cure for							
service:	10 days	7 days	4 days				
immersion:	14 days	7 days	4 days				
lf maximum recoat	time is exceeded	, abrade surface	before recoating.				
Drying time is temperature, humidity, and film thickness dependent							

mperature, humidity, and film thickness dependent, Paint temperature must be at least 40°F (4.5°C) minimum.

Pot Life: 10 hours 4 hours 2 hours 30 minutes Sweat-in-time: 30 minutes 15 minutes

Shelf Life: 36 months, unopened Store indoors at 40°F (4.5°C)

to 100°F (38°C). Flash Point:

94°F (34°C), TCC, mixed Reducer, R7K15 Reducer R7K111 or Oxsol 100 Reducer/Clean Up: In California:

#### RECOMMENDED USES

- Marine applications
- Fabrication shops
- Pulp and paper mills
- Power plants
- Offshore platforms
- Refineries
- Chemical plants
- Tank exteriors
- Water treatment plants
- When enhanced edge protection is required Suitable for use in USDA inspected facilities Conforms to AWWA D102 OCS #5

- Recommended primer for FIRETEX hydrocarbon coatings FIRETEX M89/02 primer for cryogenic applications

#### PERFORMANCE CHARACTERISTICS

Substrate\*: Steel

Surface Preparation\*: SSPC-SP10/NACE 2

System Tested\*:

1 ct. Macropoxy 646 FF @ 6.0 mils (150 microns) dft

\*unless otherwise noted below

Test Name	Test Method	Results	
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	137 mg loss	
Adhesion	ASTM D4541	1,037 psi	
Corrosion Weathering <sup>1</sup>	ASTM D5894, 36 cycles, 12,000 hrs	Rating 10 per ASTN D714 for blistering; Rating 10 per ASTN D610 for rusting	
Direct Impact Resistance	ASTM D2794	32 in. lb.	
Dry Heat Resistance	ASTM D2485	250°F (121°C)	
Flexibility	ASTM D522, 180° bend, 1/4" mandrel	Passes	
Humidity Resistance	ASTM D4585, 6750 hrs	No blistering, cracking or rusting	
Immersion	1 year fresh and salt water	Passes, no rusting, blistering or loss of adhesion	
Pencil Hardness	ASTM D3363	3H	
Salt Fog Resistance <sup>1</sup>	ASTM B117, 6700 hrs	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting	
Water Vapor Permeance	ASTM D1653, Method B	1.04	

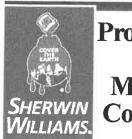
Epoxy coatings may darken or discolor following application and curing.

Footnotes:

<sup>1</sup>Zinc Clad II Plus Primer

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continued on back



# **Protective** Marine **Coatings**

# MACROPOXY® 646 FF FLAKE FILLED EPOXY

PART A PART B B58A604 B58V600

GRAY HARDENER

Revised: April 11, 2019

#### PRODUCT INFORMATION

4.59

#### RECOMMENDED SYSTEMS

******		Dry Film Ti	hickness / ct. (Microns)
Immer	sion and atmospheric:		
Steel: 2 cts.	Macropoxy 646 FF	5.0-10.0	(125-250)
Concre 2 cts.	ete/Masonry, smooth: Macropoxy 646 FF	5.0-10.0	(125-250)
Concre 1 ct.	ete Block:  Kem Cati-Coat HS Epoxy Filler/Sealer as needed to fill yolds and provide a se	10.0-20.0	(250-500)
2 cts.	as needed to fill voids and provide a co Macropoxy 646 FF	5.0-10.0	(125-250)
Steel: (Shop a used at	pheric: applied system, new construction, AWW. t 3 mils minimum dft when used as an in liti-coat system)	A D102, can termediate c	also be pat as part
1 ct.	Macropoxy 646 FF of recommended topcoat	3.0-6.0	(75-150)
Steel: 1 ct. 2 cts.	Recoatable Epoxy Primer Macropoxy 646 FF	4.0-6.0 5.0-10.0	(100-150) (125-250)
Steel: 1 ct. 1-2 cts. or or or	Macropoxy 646 FF Acrolon 218 Polyurethane Hi-Solids Polyurethane SherThane 2K Urethane Hydrogloss	4.0-6.0 3.0-6.0 3.0-5.0 2.0-4.0 2.0-4.0	(100-150) (75-150) (75-125) (50-100) (50-100)
Steel: 2 cts. 1-2 cts.	Macropoxy 646 FF Tile-Clad HS Epoxy	5.0-10.0 2.5-4.0	(125-250) (63-100)
Steel: 1 ct. 1 ct. 1-2 cts.	Zinc Clad II Plus Macropoxy 646 FF Acrolon 218 Polyurethane	3.0-6.0 5.0-10.0 3.0-6.0	(75-150) (125-250) (75-150)
Steel: 1 ct. or 1 ct. 1-2 cts.	Zinc Clad III HS Zinc Clad IV Macropoxy 646 FF Acrolon 218 Polyurethane	3.0-5.0 3.0-5.0 5.0-10.0 3.0-6.0	(75-125) (75-125) (125-250) (75-150)
Alumin 2 cts.	um: Macropoxy 646 FF	2.0-4.0	(50-100)
Galvani	zing:		

FIRETEX M89/02 Cryogenic Applications, M90 and M93 Series:
1 ct. Macropoxy 646 FF 2.0-5.0 (50-12 ct. FIRETEX M89/02 and/or inturnescent (50-125)

2.0-4.0

(50-100)

Macropoxy 646 FF

The systems listed above are representative of the product's use, other systems may be appropriate.

#### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

#### SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation in-Minimum recommended surface preparation: Iron & Steel

Atmospheric: Immersion: Aluminum:

SSPC-SP2/3 SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) profile SSPC-SP1 SSPC-SP1

Authinum:
Galvanizing: SSPC-SP1
Concrete & Masonry
Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3 SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R, CSP 1-3

Surface Preparation Standards					
	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal Near White Metal		Sa 3 Sa 2.5	Sa 3 Sa 2.5	SP 5 SP 10	1 2
Commercial Blast Brush-Off Blast	5	Sa 2 Sa 1	Sa 2 Sa 1	SP 6 SP 7	3
Hand Tool Cleaning	Rusted Pitted & Rusted	C St 2 D St 2	C St 2 D St 2	SP 2 SP 2	-
Power Tool Cleaning	Rusted Pitted & Rusted	C St 3 D St 3	C St 3 D St 3	SP 3 SP 3	-

#### TINTING

Do not tint.

#### **APPLICATION CONDITIONS**

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface) 40°F (4.5°C) minimum, 120°F (49°C) maximum (material) At least 5°F (2.8°C) above dew point Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

#### ORDERING INFORMATION

Packaging: Part A: Part B:

1 gallon (3.78L) and 5 gallon (18.9L) containers 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight:

13.16 ± 0.2 lb/gal; 1.60 Kg/L mixed, may vary by color

#### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

#### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



# **Protective** Marine **Coatings**

# MACROPOXY® 646 FF FLAKE FILLED EPOXY

PART A PART B

B58A604 B58V600

GRAY **HARDENER** 

Revised: April 11, 2019

#### APPLICATION BULLETIN

4.59

#### SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Iron & Steel, Atmospheric Service:

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel within 8 hours of before flash rusting occurs.

Iron & Steel, Immersion Service:

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-3 mils / 50-75 microns). Remove all weld spatter and round all sharp edges. Prime any bare steel the same day as it is cleaned.

Alúminum

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1.

Galvanized Steel

Galvanized Steel

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1 (recommended solvent is VM&P Naphtha). When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned.

Concrete and Masonry

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910.

Concrete, Immersion Service:

For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 1-3.

Follow the standard methods listed below when applicable:
ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.

Emission Rate of Concrete.

SSPC-SP 13/Nace 6 Surface Preparation of Concrete. ICRI No. 310.2R Concrete Surface Preparation.

**Previously Painted Surfaces** 

If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

Surface Preparation Standards					
	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal Near White Metal Commercial Blast Brush-Off Blast		Sa 3 Sa 2.5 Sa 2 Sa 1	Sa 3 Sa 2.5 Sa 2 Sa 1	SP 5 SP 10 SP 6 SP 7	1 2 3 4
Hand Tool Cleaning	Rusted Pitted & Rusted	C St 2 D St 2	DSt2	SP 2 SP 2	-
Power Tool Cleaning	Rusted Pitted & Rusted	C St 3 D St 3	C St 3 D St 3	SP 3 SP 3 SP 3	:

#### **APPLICATION CONDITIONS**

Temperature:

35°F (1.7°C) minimum, 120°F (49°C)

maximum (air and surface)

40°F (4.5°C) minimum, 120°F (49°C)

maximum (material)

At least 5°F (2.8°C) above dew point

Relative humidity:

85% maximum

#### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean	Up	Reducer	R7K15
In California			

**Airless Spray** 

Pump	30:1
Pressure	
Hose	1/4" ID
Tip	017"023"
Filter	60 mesh
Reduction	As needed up to 5% by volume

#### Conventional Spray

Gun	DeVilbiss MBC-510
Fluid Tip	E
Air Nozzle	
Atomization Pressure	60-65 psi
Fluid Pressure	10-20 psi
Reduction	As needed up to 5% by volume
Requires oil and moistu	ire separators

#### Brush

Brush	.Nylon/Polyester or Natural Bristle
	As needed up to 5% by volume

#### Roller

Cover	.3/8" woven with solvent resistant core
Reduction	As needed up to 5% by volume

If specific application equipment is not listed above, equivalent equipment may be substituted.



# MACROPOXY® 646 FF FLAKE FILLED EPOXY

PART A

B58A604 B58V600

GRAY HARDENER

Revised: April 11, 2019

#### APPLICATION BULLETIN

4.59

#### **APPLICATION PROCEDURES**

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine one part by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

Apply paint at the recommended film thickness and spreading rate as indicated below:

Ī	Recommended Spreading Rate per coat:					
ı	Minimum			Maximum		
1	Wet mils (microns)	7.0	(175)	13.5	(338)	
1	Dry mils (microns)	5.0*	(125)	10.0*	(250)	
1	~Coverage sq ft/gal (m²/L)	116	(2.8)	232	(5.7)	
	Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft *See Performance Tips section	1152	(28.2)		• ,	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drving Sch	edule @ 7.0	mils wet (175	microns):
	@ 35°F/1.7°C	@ 77°F/25°C	@ 100°F/38°C
		50% RH	
To touch:	4-5 hours	2 hours	1.5 hours
To handle:	48 hours	8 hours	4.5 hours
To recoat:			
minimum:	48 hours	8 hours	4.5 hours
maximum:	1 year	1 year	1 year
Cure for			
service:	10 days	7 days	4 days
immersion:	14 days	7 days	4 days
10			

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Paint temperature must be at least 40°F (4.5°C) minimum.

Pot Life: 10 hours 4 hours 2 hours

Sweat-in-time: 30 minutes 30 minutes 15 minutes

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

#### **CLEAN UP INSTRUCTIONS**

Clean spills and spatters immediately with Reducer R7K15. Clean tools immediately after use with Reducer R7K15. In California use Reducer R7K111. Follow manufacturer's safety recommendations when using any solvent.

#### DISCLAIMER

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#### PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R7K15. In California use Reducer R7K111.

Insufficient ventilation, incomplete mixing, miscatalyzation, and external heaters may cause premature yellowing.

Excessive film build, poor ventilation, and cool temperatures may cause solvent entrapment and premature coating failure.

Quik-Kick Epoxy Accelerator is acceptable for use. See data page 4.99 for details.

When coating over aluminum and galvanizing, recommended dft is 2-4 mils (50-100 microns).

Refer to Product Information sheet for additional performance characteristics and properties.

#### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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#### WARRANTY

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OTO OTC Phasell

SCAOMD CARB

Canada

CARB SCM2007



Yes

Yes

Yes



#### HEAVY DUTY BLOCK FILLER

B42W00150

#### **CHARACTERISTICS**

EPD

Yes MPI

Yes

Yes LEED<sup>9</sup> v4 Emissions Yes Yes LEED® v4 VOC

As of 07/17/2018, Complies with Yes LEED® 09 NC CI Yes LEED® 09 CS

Pro Industrial Heavy Duty Block Filler is a commercial strength block filler formulated for precast concrete, concrete block, and cinder block, and is suitable for both interior and exterior applications.

- **Excellent Filling Properties**
- Good Hiding
- Topcoat with high performance coatings such as epoxies and urethanes
- Applies by Brush, Roller or Spray
- Interior/Exterior
- Suitable for use in USDA inspected facilities

Acrylic Finishes:

1 ct. Pro Industrial Heavy Duty Block Filler 2 cts. Pro Industrial Acrylic Coating or Pro Industrial DTM Coating or Pro Industrial Multi-Surface Acrylic

Alkyd Finishes:

1 ct. Pro Industrial Heavy Duty Block Filler 2 cts. Pro industrial Urethane Alkyd or Pro Industrial WB Alkyd Urethane

Catalyzed Epoxy, Solvent Based:

1 ct. Pro Industrial Heavy Duty Block Filler 2 cts.Pro Industrial High Performance Epoxy or Macropoxy 646

or Macropoxy 646-100 or Tile-Clad HS Epoxy

RECOMMENDED SYSTEMS

The systems listed above are representative of the product's use, other systems may be appropriate.

Catalyzed Epoxy, Water Based: 1 ct. Pro Industrial Heavy Duty Block Filler 2 cts. Pro Industrial WB Epoxy or Pro Industrial Pre-Catalyzed Epoxy

Polyurethane Finish, Solvent Based: 1 ct. Pro Industrial Heavy Duty Block Filler 1 ct. Macropoxy 646 2 cts. Hi-Solids Polyurethane or Acrolon 218 HS Polyurethane

Polyurethane Finish Water Based: 1 ct. Pro Industrial Heavy Duty Block Filler 2 cts. Pro Industrial WB Acrolon 100

#### PRODUCT CHARACTERISTICS Color:

White

Recommended Spread Rate per coat:

Wet mils: 16.0 - 21.0 Dry mils: 8.0 - 10.5Coverage: 75 - 100 sq ft/gal

Approximate spreading rates are calculated on volume solids and do not include any application loss. Note: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Time 16.0 mils wet @ 50% RH:

@ 77°F To touch: 2 hrs To Handle: 8 hrs To recoat: Itself Water borne 18 hrs Solvent borne 72 hours

Drying time is temperature, humidity, and film thickness dependent.

Finish:

Flat Shelf Life: 36 months, unopened

Store indoors at 40°F to 100°F

White B42W00150 VOC (less exempt solvents):

<50 g/L - 0.42 lb/gal As per 40 CFR 59.406 and SOR/2009-264, s.12 Volume Solids:

50 ± 2% Weight Solids: 70 ± 2% Weight per Gallon: 13.99 lb Flash Point: N/A Vehicle Type:

Acrylic Latex

System Tested: (unless otherwise indicated)

Substrate: Concrete

Surface Preparation: SSPC-SP13

Finish: 1 ct. Pro Industrial Heavy Duty Block Filler

Adhesion:

Method: **ASTM D4541** Result: > 200 psi

**Direct Impact Resistance:** ASTM D2794 Method:

Result: 8 in. lb

Flexibility:

Method: ASTM D522, 180° bend,

1" mandrel

Result: **Pass** 

Moisture Resistance:

Method: TT-C-555B Result No failure

Thermal Shock:

ASTM D2246 (5 cycles) Method:

Result: Excellent Wind Driven Rain Resistance:

Method: TT-C-555b Result: Passes

Wet Heat Resistance: Method: Non-immersion Result 120°F (49°C)

**Dry Heat Resistance:** Method: **ASTM D2485** Result: 200°F (93°)

07/2018

www.sherwin-williams.com

continued on back

#### Pro Industrial™ HEAVY DUTY BLOCK FILLER



#### SURFACE PREPARATION

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion. Masonry surfaces must be dry before priming. Moisture content must be 15% or lower, and the pH between 6 and 9. If the pH is greater than 9, use Loxon Block Surfacer in place of Pro Industrial Heavy Duty Block Filler.

#### Mildew:

Prior to attempting to remove mildew, it is always recommended to test any cleaner on a small. inconspicuous area prior to use. Bleach and bleaching type cleaners may damage or discolor existing paint films. Bleach alternative cleaning solutions may be advised. Mildew may be removed before painting by washing with a solution of 1 part liquid bleach and 3 parts water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/ water solution

#### Concrete/Masonry

New: For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 1-3. Surface must be clean, dry, sound, and offer sufficient profile to achieve adequate adhesion. Minimum substrate cure is 28 days at 75°F (24°C). Remove all form release agents, curing compounds, salts, efflorescence, laitance, and other foreign matter by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Refer to ASTM D4260. Rinse thoroughly to achieve a final pH between 6.0 and 9.0. Allow to dry thoroughly prior to coating.

Old: For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 1-3. Surface preparation is done in much the same manner as new concrete; however, if the concrete is contaminated with oils, grease, chemicals, etc., they must be removed by cleaning with a strong detergent. Refer to ASTM D4258. Form release agents, hardeners, etc. must be removed by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Do not apply to smooth, slick surfaces, existing coatings or peeling may result. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

#### **APPLICATION PROCEDURES**

Apply paint at the recommended film thickness and spreading rate as indicated on front page. Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, over thinning, climatic conditions, and excessive film build. Excessive reduction of material can affect film build, appearance, and adhesion.

SAFETY PRECAUTIONS

Before using, carefully read CAUTIONS on label and refer to the Safety Data Sheets (SDSs) before use. FOR PROFESSIONAL USE ONLY,

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

#### PERFORMANCE TIPS

For repairing exterior cracks, bugholes, air pockets, and volds use an elastomeric patch or seal. Make sure material is forced into pores and bugholes in order to provide a pinhole free surface. Do not use below grade as a hydrostatic waterproofer or in immersion service.

Rolling will provide a textured finish. Squeegee will provide a smoother finish.

For better filling results, apply by airless spray and immediately back roll.

Must be topcoated for exterior use. Do not apply over existing coatings. Do not apply to damp or wet surfaces.

#### **APPLICATION**

Stir thoroughly with a paddle or Jiffy Mixer before using.

Apply at temperatures above 50°F. Reduction is not recommended.

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compatible with the existing environmental and application conditions.

Use a nylon/polyester brush Roller

Use a 3/4"-11/4" synthetic cover

Spray - Airless

Pressure ......2300 psi Tip ......019"-.028" Backroll with a 1/4"-11/4" synthetic cover

If specific application equipment is not listed above, equivalent equipment may be substituted.

#### Protect from freezing.

Temperature:

50°F minimum 95°F maximum

(Air, surface, and material) At least 5°F above dew point

Relative humidity:

85% maximum

Heavy Duty Block Filler is ready-to-spray (airless) and does not require thinning. Mix material thoroughly to a uniform consistency with power agitation and apply by brush, roller, or spray. Follow by squeegee, trowel, or roller, being careful to force material into pores in order to produce a relatively smooth surface. In wet areas, a smooth continuous pinhole-free appearance is necessary for proper protection before topcoating. Two coats will provide the most uniform surface.

#### **CLEANUP INFORMATION**

Clean spills, spatters, hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with compliant cleanup solvent to prevent rustina of the equipment. manufacturer's safety recommendations when using solvents.

HOTW 07/17/2018 FRC, SP, KOR

R42W00150

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PART A PART B **B65-200 SERIES B60V2** 

SATIN HARDENER

Revised: April 27, 2016

5.20

#### PRODUCT DESCRIPTION

COROTHANE II is a 2-component, aliphatic acrylic modified polyurethane designed for use in industrial environments.

- · A chemical and abrasion resistant urethane enamel.
- · A heavy duty maintenance coating
- Outstanding application properties

#### PRODUCT CHARACTERISTICS

Finish:

Satin

Color:

Wide range of colors available

Volume Solids:

60% ± 2%, mixed, may vary by color

Weight Solids:

76% ± 2%, mixed, may vary by color

VOC (EPA method #24): Unreduced:

Unreduced: <340 g/L; 2.8 lb/gal Reduced 10%: <400 g/L; 3.33 lb/gal

Mix Ratio: 4:1 by volume

Recommended	Spreading	Rate	per coat:
			•

	Minimum		Maximum	
Wet mils (microns)	3.0	(75)	7.0	(175)
Dry mils (microns)	2.0	(50)	4.0	(100)
~Coverage sq ft/gal (m²/L)	230	(5.6)	500	(12.2)
Theoretical coverage sq ft/gal	960	(23.5)		Ì

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

#### Drying Schedule @ 4.0 mils wet (100 microns):

	@ 40°F/4.5°C	@ 77°F/25°C	@ 120°F/49°C
		50% RH	
To touch:	6 hours	2 hours	1 hour
To handle:	24 hours	8 hours	4 hours
To recoat:			
minimum:	24 hours	8 hours	4 hours
maximum:	14 days	14 days	14 days
To cure:	14 days	10 days	7 days
Pot Life:	8 hours	4 hours	2 hours
System Times		Nama Damiliani	

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Shelf Life:

Part A - 36 months, unopened Part B - 24 months, unopened Store indoors at 40°F (4.5°C) to

100°F (38°C).

Flash Point:

80°F (27°C), mixed 72°F (22°C), mixed Ultradeep

Base

Reducer/Clean Up:

Spray: Brush / Roll:

Reducer #58 Reducer #216, R7K216

#### RECOMMENDED USES

Use over prepared substrates in industrial environments, such as:

- Offshore platforms
- · Exterior surfaces of steel tanks
- Rolling stock
- · Structural steel

- Paper mills Clean rooms
- · Chemical processing equipment · Exterior metal siding and trim
- Power plants
- Marine applications
- Conveyors
- Oil field machinery
- Refineries Handrails
- Suitable for use in USDA inspected facilities.

#### PERFORMANCE CHARACTERISTICS

Substrate\*: Steel

Surface Preparation\*: SSPC-SP6/NACE 3

System Tested\*:

1 ct. Recoatable Epoxy Primer @ 4.0 mils (100 microns) dft 1 ct. Corothane II @ 3.0 mils (75 microns) dft \*unless otherwise noted below

Test Name Test Method		Results	
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	142 mg loss	
Adhesion	ASTM D4541	1600 psi	
Corrosion Weathering <sup>1</sup>	ASTM D5894, 30 cycles, 10,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting	
Direct Impact Resistance	ASTM D2794	85 in. lbs.	
Dry Heat Resistance	ASTM D2485	200°F (93°C)	
Exterior Durability	1 year at 45° South	Passes	
Flexibility	ASTM D522, 180° bend, 7/16" mandrel	Passes	
Moisture Condensation Resistance	ASTM D4585, 100°F (38°C), 1000 hours	No blisters, rust, delamination, or rust creepage at scribe	
Pencil Hardness	ASTM D3363	В	
Salt Fog Resistance²	ASTM B117, 11,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting	
Thermal Shock	ASTM D2246, 5 cycles	Excellent	

<sup>1</sup> Primer - Zinc Clad II Plus; Intermediate - Recoatable Epoxy Primer

<sup>2</sup> Primer - Zinc Clad II Plus; Intermediate - Macropoxy 646 Epoxy



PART A PART B **B65-200 SERIES** B60V2

SATIN HARDENER

Revised: April 27, 2016

Concrete:

1-2 cts. Corothane II

1 ct.

#### PRODUCT INFORMATION

5.20

RECOMMENDED SYSTEMS			
Steel universal miner	Dry Film T Mils	hickness / ct. (Microns)	
Steel, universal primer: 1 ct. Kem Bond HS Primer 1-2 cts. Corothane II	2.0-5.0 2.0-4.0	(50-125) (50-100)	
Steel, epoxy primer: 1 ct. Recoatable Epoxy Primer 1-2 cts. Corothane II	4.0-6.0 2.0-4.0	(100-150) (50-100)	
Steel, epoxy mastic primer: 1 ct. Epoxy Mastic Aluminum II 1-2 cts. Corothane II	6.0-8.0 2.0-4.0	(150-200) (50-100)	
Steel, inorganic zinc-rich primer: 1 ct. Zinc-Clad II Plus 1 ct. Recoatable Epoxy Primer 1-2 cts. Corothane II	3.0-5.0 4.0-6.0 2.0-4.0	(75-125) (100-150) (50-100)	
Galvanized Metal: 1 ct. Tile-Clad High Solids 1-2 cts. Corothane II	2.5-4.0 2.0-4.0	(63-100) (50-100)	
Aluminum: 1 ct. DTM Wash Primer 1-2 cts. Corothane II	0.7-1.3 2.0-4.0	(18-32) (50-100)	

To enhance Corothane II product performance and extend long term weathering characteristics, apply 1 coat of Diamond-Clad Clear Coat Urethane @ 1.0-2.0 mils (25-50 microns) dft.

Heavy Duty Block Filler

The systems listed above are representative of the product's use, other systems may be appropriate.

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#### SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:
\* Iron & Steel: SSPC-SP6/NACE 3, 2 mil
(50 micron) profile
\* Aluminum: SSPC-SP1

Galvanizing: Concrete & Masonry:

SSPC-SP1 SSPC-SP13/NACE 6 or ICRI No. 310.2R, CSP 1-3

Primer required

Surface Preparation Standards					
	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal Near White Metal Commercial Blast Brush-Off Blast		Sa 3 Sa 2.5 Sa 2 Sa 1	Sa 3 Sa 2.5 Sa 2 Sa 1	SP 5	1 2 3
Hand Tool Cleaning	Rusted Pitted & Rusted	C St 2 D St 2	CSt2 DSt2	SP 6 SP 7 SP 2 SP 3 SP 3 SP 3	-
Power Tool Cleaning	Rusted Pitted & Rusted	C St 3 D St 3	C St 3 D St 3	ŠP3	

#### TINTING

Tint with Maxitoner colorants only into Part A at 100% tint strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

#### **APPLICATION CONDITIONS**

Temperature:

10.0-18.0 (250-450)

(50-100)

2.0-4.0

40°F (4.5°C) minimum, 120°F (49°C)

maximum

(air, surface, and material) At least 5°F (2.8°C) above dew point

Relative humidity:

85% maximum

Refer to product Application Bulletin for detailed application infor-

#### **ORDERING INFORMATION**

Packaging: Part A: Part B:

1 gallon (3.78L) and 4 gallon (15.1L) kits 1 quart (0.94L) and 1 gallon (3.78L)

Weight:

11.9 ± 0.2 lb/gal ; 1.4 Kg/L mixed, may vary with color

#### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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#### WARRANTY

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PART A PART R **B65-200 SERIES** B60V2

SATIN HARDENER

Revised: April 27, 2016

#### APPLICATION BULLETIN

5.20

#### SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

#### iron & Steel

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Primer required

#### Galvanized Steel

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. Primer required.

#### Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

APPLICATION	CONDITIONS
-------------	------------

Temperature:

40°F (4.5°C) minimum, 120°F (49°C)

(air, surface, and material) At least 5°F (2.8°C) above dew point

Relative humidity:

85% maximum

#### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

#### Reducer/Clean Up

Spray	Reducer #58,	Reducer #58
Brush and Roll	Reducer #216	6. R7K216

#### **Airless Spray**

Pressure	2400 psi
Hose	
Tip	015"017"
Filter	

Reduction.....As needed up to 10% by volume

#### Conventional Spray

Gun	Binks 95
EL LINE A	
Fluid Nozzle	63 B
Air Nozzle	69 PB
Atomization Pressure	50 70 pci
Fluid Pressure	20 - 25 pei
1 tale 1 1000alo	20 - 20 pai

Reduction.....As needed up to 10% by volume

Brush......Natural bristle

Reduction......As needed up to 10% by volume

#### Roller

•	-11-01		
	Cover	3/8" woven with solvent resistant or	ore
	Reduction	. As needed up to 10% by volume	

If specific application equipment is not listed above, equivalent equipment may be substituted.

Surface Preparation Standards					
	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal Near White Metal Commercial Blast		Sa 3 Sa 2.5 Sa 2	\$a 3 \$a 2.5 \$a 2	SP 5 SP 10 SP 6	1 2 3
Brush-Off Blast	Rusted	Sa 1	Sa 1	SP 7 SP 2	4
Hand Tool Cleaning	Pitted & Rusted	CSt2 DSt2	C St 2 D St 2	SP 2	
Power Tool Cleaning		C St 3	C St 3	ŠP 3	
	Filled & Rusted	_D.St 3	D St 3	SP 3	-



PART A
PART B

**B65-200 SERIES B60V2** 

SATIN HARDENER

Revised: April 27, 2016

#### APPLICATION BUILLETIN

5.20

#### **APPLICATION PROCEDURES**

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Thoroughly agitate the mixture with power agitation for 5 minutes.

If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

# Recommended Spreading Rate per coat: Minimum Maximum Wet mils (microns) 3.0 (75) 7.0 (175) Dry mils (microns) 2.0 (50) 4.0 (100) ~Coverage sq ft/gal (m²/L) 230 (5.6) 500 (12.2) Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft 960 (23.5)

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 4.0 mils wet (100 microns):				
	@ 40°F/4.5°C	@ 77°F/25°C	@ 120°F/49°C	
		50% RH		
To touch:	6 hours	2 hours	1 hour	
To handle:	24 hours	8 hours	4 hours	
To recoat:				
minimum:	24 hours	8 hours	4 hours	
maximum:	14 days	14 days	14 days	
To cure:	14 days	10 days	7 days	
Pot Life:	8 hours	4 hours	2 hours	
Sweat-in-Time: None Required				
If maximum recoat time is exceeded, abrade surface before recoating.				

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

Drying time is temperature, humidity, and film thickness dependent.

#### CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #58. Clean tools immediately after use with Reducer #58. Follow manufacturer's safety recommendations when using any solvent.

#### DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

#### PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #58. Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

Quick-Thane Accelerator is acceptable for use. See data page 5.97 for details.

E-Z Roll Urethane Defoamer is acceptable for use. See data page 5.99 for details.

Refer to Product Information sheet for additional performance characteristics and properties.

#### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

#### WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



PART A PART B **B65-200 SERIES** B60V2

SATIN HARDENER

Revised: April 27, 2016

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#### PRODUCT DESCRIPTION

COROTHANE II is a 2-component, aliphatic acrylic modified polyurethane designed for use in industrial environments.

- · A chemical and abrasion resistant urethane enamel.
- A heavy duty maintenance coating
- Outstanding application properties

#### PRODUCT CHARACTERISTICS

Finish: Satin

Color: Wide range of colors available

Volume Solids: 60% ± 2%, mixed, may vary by color

Weight Solids: 76% ± 2%, mixed, may vary by color

Unreduced: <340 g/L; 2.8 lb/gal Reduced 10%: <400 g/L; 3.33 lb/gal VOC (EPA method #24): Unreduced:

Mix Ratio: 4:1 by volume

Recommended Sprea	ading R	ate pe	coat:	
	Minir	num	Maxi	mum
Wet mils (microns)	3.0	(75)	7.0	(175)
Dry mils (microns)	2.0	(50)	4.0	(100)
~Coverage sq ft/gal (m²/L)	230	(5.6)	500	(12.2)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	960	(23.5)		

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drving Schedule @ 4	.0 mils wet	(100 microns):

	@ 40°F/4.5°C	@ 77°F/25°C	@ 120°F/49°C
		50% RH	
To touch:	6 hours	2 hours	1 hour
To handle:	24 hours	8 hours	4 hours
To recoat:			
minimum:	24 hours	8 hours	4 hours
maximum:	14 days	14 days	14 days
To cure:	14 days	10 days	7 days
Pot Life:	8 hours	4 hours	2 hours
Current in Times		Manager Physical Control	

Sweat-in-Time: None Required If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent. Shelf Life:

Part A - 36 months, unopened Part B - 24 months, unopened Store indoors at 40°F (4.5°C) to

100°F (38°C).

Flash Point:

80°F (27°C), mixed 72°F (22°C), mixed Ultradeep

Reducer/Clean Up:

Spray: Brush / Roll: Reducer #58 Reducer #216, R7K216

#### RECOMMENDED USES

Use over prepared substrates in industrial environments, such as:

- Offshore platforms
- · Exterior surfaces of steel tanks
- Rolling stock
- Structural steel
- Paper mills
- · Chemical processing equipment
- Clean rooms
- · Exterior metal siding and trim Marine applications
- Power plants Conveyors
- · Oil field machinery
- Refineries
- Handrails
- Suitable for use in USDA inspected facilities.

#### PERFORMANCE CHARACTERISTICS

Substrate\*: Steel

Surface Preparation\*: SSPC-SP6/NACE 3

System Tested\*:

1 ct. Recoatable Epoxy Primer @ 4.0 mils (100 microns) dft 1 ct. Corothane II @ 3.0 mils (75 microns) dft \*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	142 mg loss
Adhesion	ASTM D4541	1600 psi
Corrosion Weathering¹	ASTM D5894, 30 cycles, 10,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting
Direct Impact Resistance	ASTM D2794	85 in. lbs.
Dry Heat Resistance	ASTM D2485	200°F (93°C)
Exterior Durability	1 year at 45° South	Passes
Flexibility	ASTM D522, 180° bend, 7/16" mandrel	Passes
Moisture Condensation Resistance	ASTM D4585, 100°F (38°C), 1000 hours	No blisters, rust, delamination, or rust creepage at scribe
Pencil Hardness	ASTM D3363	В
Salt Fog Resistance²	ASTM B117, 11,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting
Thermal Shock	ASTM D2246, 5 cycles	Excellent

#### Footnotes:

<sup>1</sup> Primer - Zinc Clad II Plus; Intermediate - Recoatable Epoxy Primer

<sup>2</sup> Primer - Zinc Clad II Plus; Intermediate - Macropoxy 646 Epoxy



PART A PART B **B65-200 SERIES** B60V2

SATIN HARDENER

Revised: April 27, 2016

#### PRODUCT INFORMATION

5.20

RECOMMENDED SYSTEMS				
	Dry Film Th	ickness / ct. (Microns)		
Steel, universal primer: 1 ct. Kem Bond HS Primer 1-2 cts. Corothane II	2.0-5.0 2.0-4.0	(50-125) (50-100)		
Steel, epoxy primer: 1 ct. Recoatable Epoxy Primer 1-2 cts. Corothane II	4.0-6.0 2.0-4.0	(100-150) (50-100)		
Steel, epoxy mastic primer: 1 ct. Epoxy Mastic Aluminum II 1-2 cts. Corothane II	6.0-8.0 2.0-4.0	(150-200) (50-100)		
Steel, inorganic zinc-rich primer: 1 ct. Zinc-Clad II Plus 1 ct. Recoatable Epoxy Primer 1-2 cts. Corothane II	3.0-5.0 4.0-6.0 2.0-4.0	(75-125) (100-150) (50-100)		
Galvanized Metal: 1 ct. Tile-Clad High Solids 1-2 cts. Corothane II	2.5-4.0 2.0-4.0	(63-100) (50-100)		
Aluminum: 1 ct. DTM Wash Primer 1-2 cts. Corothane I!	0.7-1.3 2.0-4.0	(18-32) (50-100)		
Concrete: 1 ct. Heavy Duty Block Filler 1-2 cts. Corothane II	10.0-18.0 2.0-4.0	(250-450) (50-100)		

To enhance Corothane II product performance and extend long term weathering characteristics, apply 1 coat of Diamond-Clad Clear Coat Urethane @ 1.0-2.0 mils (25-50 microns) dft.

The systems listed above are representative of the product's use. other systems may be appropriate.

#### DISCLAIMER

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#### SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Refer to product Application Bulletin for detailed surface prepara-tion information.

Minimum recommended surface preparation:

\* Iron & Steel: SSPC-SP6/NACE 3, 2 mil (50 micron) profile

\* Aluminum: SSPC-SP1

\* Galvanizing: SSPC-SP1

\* Concrete & Masonry: SSPC-SP13/NACE 6 or ICRI No. 310.2R, CSP 1-3

Primer required

Surface Preparation Standards					
	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal Near White Metal Commercial Blast Brush-Off Blast		Sa 3 Sa 2.5 Sa 2 Sa 1	Sa 3 Sa 2.5 Sa 2 Sa 1	SP 5 SP 10 SP 6	1 2 3
Hand Tool Cleaning	Rusted Pitted & Rusted	C St 2 D St 2	CSt 2 D St 2	5P7 5P7 2223 5PP23 5PP3	-
Power Tool Cleaning		C St 3 D St 3	C St 3 D St 3	SP3 SP3	-

#### TINTING

Tint with Maxitoner colorants only into Part A at 100% tint strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

#### **APPLICATION CONDITIONS**

Temperature:

40°F (4.5°C) minimum, 120°F (49°C)

maximum

(air, surface, and material) At least 5°F (2.8°C) above dew point

Relative humidity:

85% maximum

Refer to product Application Bulletin for detailed application infor-

#### **ORDERING INFORMATION**

Packaging: Part A: Part B;

1 gallon (3.78L) and 4 gallon (15.1L) kits 1 quart (0.94L) and 1 gallon (3.78L)

Weight:

11.9 ± 0.2 lb/gal ; 1.4 Kg/L mixed, may vary with color

#### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

#### WARRANTY

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PART A PART B B65-200 SERIES B60V2

SATIN HARDENER

Revised: April 27, 2016

#### APPLICATION BULLETIN

5.20

#### SURFACE PREPARATIONS

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

#### Iron & Steel

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

#### **Aluminum**

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Primer required

#### **Galvanized Steel**

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. Primer required.

#### Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

	Surface Pre	paration Sta	ndards		
	Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal Near White Metal Commercial Blast Brush-Off Blast		Sa 3 Sa 2.5 Sa 2 Sa 1	Sa 3 Sa 2.5 Sa 2 Sa 1	SP 5 SP 10 SP 6 SP 7	1 2 3 4
Hand Tool Cleaning	Rusted Pitted & Rusted	C St 2 D St 2	CSt2 DSt2	SP 2 SP 2	-
Power Tool Cleaning		CSt3 DSt3	C St 3 D St 3	SP 3	

#### **APPLICATION CONDITIONS**

Temperature:

Relative humidity:

40°F (4.5°C) minimum, 120°F (49°C)

maximum

(air, surface, and material) At least 5°F (2.8°C) above dew point

. . .

85% maximum

#### APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

#### Reducer/Clean Up

	Reducer #58, Reducer #58
Brush and Roll	Reducer #216, R7K216

#### **Airless Spray**

Pressure	2400 psi
Hose	3/8" ID
Tip	015"017"
Filter	80 mesh
Reduction	As needed up to 10% by volume

#### Conventional Spray

Gun	. Binks 95
Fluid Nozzle	.63 B
Air Nozzle	.69 PB
Atomization Pressure	.50 - 70 psi
Fluid Pressure	.20 - 25 psi
Reduction	As needed up to 10% by volume

#### Brush

Brush	Natural bristle
Reduction	As needed up to 10% by volume

#### Roller

Cover	3/8" woven with solvent resistant core
Reduction	As needed up to 10% by volume

If specific application equipment is not listed above, equivalent equipment may be substituted.



PART A
PART B

B65-200 SERIES B60V2

SATIN HARDENER

Revised: April 27, 2016

#### APPLICATION BULLETIN

5.20

#### **APPLICATION PROCEDURES**

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Thoroughly agitate the mixture with power agitation for 5 minutes.

If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

# Recommended Spreading Rate per coat:

	Minimum	Maximum	
Wet mils (microns)	<b>3.0</b> (75)	<b>7.0</b> (175)	
Dry mils (microns)	<b>2.0</b> (50)	<b>4.0</b> (100)	
~Coverage sq ft/gal (m²/L)	<b>230</b> (5.6)	500 (12.2)	
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	960 (23.5)	` '	

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

#### Drying Schedule @ 4.0 mils wet (100 microns):

	@ 40°F/4.5°C	@ 77°F/25°C	@ 120°F/49°C
İ		50% RH	
To touch:	6 hours	2 hours	1 hour
To handle:	24 hours	8 hours	4 hours
To recoat:			
minimum:	24 hours	8 hours	4 hours
maximum:	14 days	14 days	14 days
To cure:	14 days	10 days	7 days
Pot Life:	8 hours	4 hours	2 hours
Sweat-in-Time:		None Required	

If maximum recoat time is exceeded, abrade surface before recoating.

Drying time is temperature, humidity, and film thickness dependent.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

#### CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #58. Clean tools immediately after use with Reducer #58. Follow manufacturer's safety recommendations when using any solvent.

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#### PERFORMANCE TIPS

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

Excessive reduction of material can affect film build, appearance, and adhesion.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #58. Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

Quick-Thane Accelerator is acceptable for use. See data page 5.97 for details.

E-Z Roll Urethane Defoamer is acceptable for use. See data page 5.99 for details.

Refer to Product Information sheet for additional performance characteristics and properties.

#### SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

#### WARRANTY

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www.sherwin-williams.com/protective



# SHER-CRYL<sup>™</sup> HPA HIGH PERFORMANCE ACRYLIC

As of 12	/04/201	7. Compiles with:	
OTC	Yes	LEED® 09 NCCI	No
OTC Phase II	Yes	LEED® 09 CS	No
SCAOMD	No	LEED* 09 S	No
CARB	Yes	LEED® V4 Emissions	No
CARB SCM 2007	Yes	LEED® v4 VOC	No
Canada	Yes	MPI Gloss	Yes

B66W00300 Gloss Ultra White B66W00311 Gloss Extra White B66T00304 Gloss Ultradeep Base B66B00300 Gloss Safety Black B66R00300 Gloss Safety Red B66Y00300 Gloss Safety Yellow

B66W00350 Semi-Gloss Ultra White B66W00351 Semi-Gloss Extra White B66T00354 Semi-Gloss Ultradeep Base

Poured Concrete Walls, Interior:

1ct. Exterior Oil-Based Wood Primer

1ct. Premium Wall & Wood Primer

ASTM D522, 180° bend,

ASTM D4585, 2186 hours Corrosion 10, Blistering 10

ASTM D2246, 10 cycles

1/8" mandrel

**ASTM D3363** 

Passes

4R

Pass

Humidty Resistance<sup>1</sup>:

Pencil Hardness:

Thermal Cycling:

2cts. Sher-Cryl HPA

2cts. Sher-Cryl HPA

Previously Painted:

2cts. Sher-Cryl HPA

2cts. Sher-Cryl HPA

2cts. Sher-Cryl HPA

Wood, Exterior:

Wood, Interior:

1ct. DTM Bonding Primer

1ct. Loxon Concrete and Masonry Primer

Prefinished Siding (baked-on finishes):

#### **CHARACTERISTICS**

SHER-CRYL HPA is a High Performance ambient cured, one component acrylic coating with excellent performance properties.

#### Features:

- Chemical resistant
- Outstanding humidty resistance
- Flash rust/early rust resistant
- Corrosion resistant
- Fast dry
- Outstanding application characteristics

#### For use on properly prepared:

- Steel, Galvanized & Aluminum
- Concrete/Masonry
- Wood
- Previously Painted & Zinc rich primers

#### Recommended for use in:

- Buildings & Warehouses
- Equipment & Machinery
- Storage Tanks & Piping & Structural Steel
- Manufacturing Facilities & New Construction
- Suitable for use in USDA inspected facilities
- Interior or Exterior

#### Tinting with CCE:

Base oz/gał Strength Extra White 0-4 SherColor Ultradeep 10-12 SherColor

36 months, unopened Shelf Life: Finish: 80°+@60° Gloss

35-45°@60° Semi-Gloss

#### Gloss Extra White B66W00311

(may vary by base)

VOC (less exempt solvent) 195 g/L - 1.63 lb/gal (as per 40 CFR 59.406 and SOR/2009-264, s. 12)

90-100 Volume Solids: 37 ± 2% Weight Solids: 46 ± 2% Weight per Gallon: 9.59 lb/gal Flash Point: N/A

Semi-Gloss Extra White B66W00351

(may vary by base)

VOC (less exempt solvent) 193 g/L - 1. (as per 40 CFR 59.406 and SOR/2009-264, s. 12) KU 193 g/L - 1.61 lb/gal 75-85

Volume Solids: 39 ± 2% Weight Solids:  $50 \pm 2\%$ 

9.91 lb/gal Weight per Gallon: Flash Point: N/A

#### **SPECIFICATIONS**

Color: Extra White & Clear Tint Base-wide range of colors available

Recommended Spread Rate per coat: Gloss Extra White 866W00311 (may vary by base)

wet mils: 6.0 -10.0 dry mils: 2.2 - 3.7

270 - 160 sq ft/gal approximate coverage:

Theoretical coverage: 593 sq ft/gal @ 1 mil dry

Drying Schedule @ 7.0 mils wet, 50% RH:

@ 50°F/10°C @ 77°F/25°C @ 120°F/49°C To touch: 1 hour 30 minutes 5 minutes To handle: 8 hours 5 hours 15 minutes To recoat: 8 hours 5 hours 15 minutes To cure: 30 days 30 days 30 days

#### RECOMMENDED SYSTEMS

Steel & Rusted Galvanized,

acrylic primer:

1ct. Pro Industrial Pro-Cryl Primer

2cts. Sher-Cryl HPA Steel alkyd or zinc primer:

1ct. Kem Bond HS

Or 1ct. Zinc Clad XI 2cts. Sher-Cryl HPA

Steel:

2cts. Sher-Cryl HPA

Aluminum & Galvanized Metal:

2cts. Sher-Cryl HPA Concrete Block:

1ct. Pro industrial Heavy Duty Block Filler

2cts. Sher-Cryl HPA

The systems listed above are representative of the product's use, other systems may be appropriate. Other primers may be appropriate.

Flexibility:

Method:

Result

Method:

Method:

Result:

Method:

Result:

Result:

System Tested: (unless otherwise indicated) Substrate: Steel Surface Preparation: SSPC-SP10

Finish: Sher-Cryl HPA Gloss-2cts @ 3.0 mils dft/ct (unless otherwise noted)

Abrasion Resistance:

Results

ASTM D4060, CS17 Wheel, 1000 Method:

cycles, 1 kg load

Adhesion: **ASTM D4541** Method: Results: 947 psi

Corrosion Weathering<sup>1</sup>: Method: ASTM D5894, 7 cycles, Corrosion 8, Blistering 10 Result:

Direct Impact Resistance: **ASTM D2794** Method: Result: >176 in, lb

Dry Heat Resistance: Method: ASTM D2485 Method A

Result: 300°F/149°C

1 ct. Sher-Cryl HPA over 1 ct. Pro Industrial Pro-Cryl Universal Prime Provides performance comparable to products in lieu of the Federal Specification: AA50570, and Paint Specification: SSPC-Paint

#### SHER-CRYL™ HPA HIGH PERFORMANCE ACRYLIC



#### SURFACE PREPARATION

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority.

When cleaning the surface per SSPC-SP1, use only an emulsifying industrial detergent, followed by a water rinse. Do not use hydrocarbon solvents for cleaning.

Iron & Steel-Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Hand Tool Clean per SSPC-SP2. For better performance, use Commercial Blast Cleaning per SSPC-SP6. Primer recommended for best performance. Prime any bare steel within 8 hours or before flash rusting occurs.

Aluminum- Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1

Galvanized Steel- Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. When the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP16 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day

Concrete Block - Surface should be thoroughly clean and dry. Air, material and surface temperatures must be at least 50°F (10°C) before filling. Use Pro Industrial Heavy Duty Błock Filler or Loxon Block Surfacer. The filler must be thoroughly dry before topcoating.

Masonry - All masonry must be free of dirt, oil, grease, loose paint, mortar, masonry dust, etc. Clean per SSPC-SP13/Nace 6/ ICRI No. 310.2R, CSP 1-3. Poured, troweled, or tilt-up concrete, plaster, mortar, etc. must be thoroughly cured at least 30 days at 75°F(23.9°C). Form release compounds and curing membranes must be removed by brush blasting. Brick must be allowed to weather for one year prior to surface preparation and painting. Weathered masonry and soft or porous cement board must be brush blasted or power tool cleaned to remove loosely adhering contamination and to get to a hard, firm surface. Apply one coat Loxon Conditioner, following label recommendations. Primer required.

Prefinished Siding (baked-on finishes)- Remove oil, grease, dirt, oxides, and other contaminants from the surface by cleaning per SSPC-SP1 or water blasting per NACE Standard RP-01-72. Always checks for compatibility of the previously painted surface with the new coating by applying a test patch of 2 - 3 square feet. Allow to dry thoroughly for 1 week before checking adhesion. DTM Bonding Primer is required.

Previously Painted Surfaces - If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest surface for adhesion. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.

Wood - Surface must be clean, dry and sound. Prime with recommended primer. No painting should be done immediately after a rain or during foggy weather. Knots and pitch streaks must be scraped, sanded and spot primed before full coat of primer is applied. All nail holes or small openings must be properly caulked.

#### **APPLICATION PROCEDURES**

Apply paint at the recommended film thickness and spreading rate as indicated on front page. Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance. Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness, or porosity of the surface, skill, and lechnique of the applicator, method of application, various surface irregularities, material lost during

mixing, spillage, over thinning, climatic conditions, and excessive film build.

Application temperature above 95°F (35°C) may cause dry spray, uneven sheen, and poor adhesion.

Application temperature below 50°F (10°C) may cause poor adhesion and lengthen the drying and curing time.

#### SAFETY PRECAUTIONS

Refer to the SDS sheets before use. FOR PROFESSIONAL USE ONLY

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

#### PERFORMANCE TIPS

Mix paint thoroughly to a uniform consistency with slow speed power agitation prior to use.

Stripe coat crevices, welds, and sharp angles to prevent early failure in these areas.

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

During the early stages of drying, the coating is sensitive to rain, dew, high humidity and moisture condensation. Plan painting schedules to avoid these influences during the first 16-24 hours of curing.

#### APPLICATION

Refer to the SDS sheet before use

Temperature:

50°F/10°C minimum 120°F/49°C maximum (Air, surface, and material)

At least 5°F above dew point

Relative humidity: 85% maximum

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compatible with the existing environmental and application conditions. Excessive reduction of material can affect film build, appearance, and adhesion.

ReducerWater R8K10 - WB Hot Weather Reducer up to 10%
Clean Up Soap & Water
Pressure
Filter
Conventional Spray Gun
Air Nozzle
Fluid Pressure
Brush
Cover3/8" woven solvent resistant core ReductionNot recommended

If specific application equipment is not listed above, quivalent equipment may be substituted.

#### CLEANUP INFORMATION

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.

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The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative or visit www.paintdocs.com to obtain the most current version of the PDS and/or an SDS.