

**SECTION 09 61 00
CONCRETE FLOOR SEALER**

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Application of water soluble. Inorganic hardening, sealing and dustproofing product for treatment of uncovered concrete floor surfaces.
- B. Related Sections:
 - 1. Section 03 30 00 – Cast-In-Place Concrete.
 - 2. Section 03 41 20: Weather Protection

1.02 REFERENCES

- A. Corps of Engineers Specification: CEGS 03300 4-79
- B. ACI 308: Standard Specification for Curing Concrete

1.03 SUBMITTALS

- A. Comply with Section [01 33 00]
- B. Product Data: Submit manufacturer's technical bulletins and MSDS on each product.
- C. Quality Control Submittals:
 - 1. Provide protection plan of surrounding areas and non-cementitious surfaces.

1.04 QUALITY ASSURANCE

- A. Comply with Section [01 40 00]
- B. Qualifications:
 - 1. Applicator: Experience in application of similar systems and products on projects of similar size and scope.
 - a. Successful completion of a minimum of 3 projects of similar size and complexity to specified Work.
 - 2. Manufacturer Qualifications: Company shall be ISO 9001:2000 Certified.
 - 3. Manufacturer: Minimum 15 years of experience in manufacturing of surface hardener.
 - 4. A mock up or test installation is recommended.
- C. Pre-Installation Meetings: Conduct meeting at Project site to comply with requirements in Section 01 31 00 – Project Management and Coordination.
 - 1. Schedule and convene meeting a minimum of 1 week prior to commencing Work of this Section.
 - 2. Review requirements for application, including surface preparation specified under other Sections, substrate condition and pretreatment, minimum curing period, forecasted weather conditions, special details, installation procedures, testing and inspection procedures, protection, and repair.
 - 3. Discuss procedures for protecting adjacent finished Work.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Comply with Section [01 60 00]
- B. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- C. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- D. Store tightly sealed materials off ground and away from moisture, direct sunlight, extreme heat, and freezing temperatures.
- E. Store in unopened packaging in clean, dry environment protected from sunlight at 40 degrees F (4 degrees C) to 85 degrees F (29 degrees C). Prevent material from freezing.

1.06 PROJECT CONDITIONS

- A. Environmental Requirements:
 - 1. Ensure that substrate surface and ambient air temperature are minimum of 35 degrees F (minus 7 degrees C) and rising at application time and remain above 35 degrees F (minus 7 degrees C) for at least 24 hours after application. Ensure that frost or frozen surfaces are thawed and dry.
 - 2. Do not place surface hardener in areas without roof cover.
 - 3. Allow surfaces to attain temperature and conditions specified before proceeding with surface hardener application.
 - 4. Perform Work of this Section in well-ventilated areas.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from the following manufacturer:
BASF Corporation
- B. Substitutions: Comply with Section [01 60 00]
- C. Specifications and Drawings are based on manufacturer's proprietary literature from BASF Building Systems. Other manufacturers shall comply with minimum levels of material, color selection, and detailing indicated in Specifications or on Drawings. Architect will be sole judge of appropriateness of substitutions.

2.02 MATERIALS

- A. Water soluble sealer/densifier, that when applied in accordance with manufacturers application recommendations will produce a dense surface resistant to abrasion, moisture, tire marking and provides added gloss to the floor finish.
 - 1. VOC Content: None
 - 2. Color: Clear.
 - 3. Acceptable Product: MasterKure HD 200WD (was formerly Kure N Harden ®) by BASF Building Systems.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Comply with Section [01700]

3.02 SURFACE PREPARATION

- A. New Concrete
1. Properly finish freshly placed concrete surfaces. Surface is ready for application when it is damp but not wet and when it can no longer be marred by foot traffic.

3.03 APPLICATION

- A. NEW CONCRETE (green concrete immediate application)
1. Apply undiluted MasterKure HD 200WD to finished, damp concrete surface with low pressure sprayer after all surface water has evaporated and the surface will not be marred or damaged by application procedures. Keep the treated surface area wet with product for thirty (30) minutes by spraying additional product and/or brooming excess material from low areas. Do not allow dry spots to occur. Prevent any drying of surface for twenty (20)-thirty (30) minutes.
 2. As MasterKure HD 200WD begins to penetrate and react, mist the surface lightly with clean water and brush, broom or power scrub with non-aggressive brush or pad into surface to aid penetration/reaction.
 3. After thirty (30) minutes, depending on temperature and humidity, MasterKure HD 200WD will begin to gel. Keep all treated surfaces moist, and continue brushing/scrubbing action for 5-15 minutes. At this stage, the surface can be slippery. Use caution.
 4. Flush the surface with water and squeegee the surface to remove excess material and all impurities present on the surface. Rinse with generous amounts of water to enhance product performance. Finish with a damp mop. MasterKure HD 200WD is environmentally safe and may be flushed directly into drains.
 5. DO NOT allow MasterKure HD 200WD residue to dry on the surface. Any product allowed to dry on the surface may cause white residue that can be difficult to remove.
- B. Existing Concrete (Cured)
1. For best results, apply to concrete cured seven (7) days or longer.
 2. Assure surface is clean and free of contaminants (waxes, curing membrane, oil, etc).
 3. Apply undiluted MasterKure HD 200WD to saturation level by sprayer, broom or squeegee.
 4. Keep the treated surface area wet with product for thirty (30) minutes by spraying additional product and/or brooming excess material from low areas.
 5. Do not allow dry spots to occur. Prevent any drying of surface for twenty (20)-thirty (30) minutes. Use brooms or floor scrubber with non-aggressive pad or brushes to aid in penetration.
 6. After twenty (20)-thirty (30) minutes, depending on temperature and humidity, MasterKure HD 200WD will begin to gel. Keep all treated surfaces moist, and continue brushing/scrubbing action for 5-15 minutes. At this stage, the surface can be slippery. Use caution.
 7. Flush the surface with water and squeegee the surface to remove excess material and all impurities present on the surface. Rinse with generous amounts of water to enhance product performance. Finish with a damp mop. MasterKure HD 200WD is environmentally safe and may be flushed directly into drains.
 8. DO NOT allow MasterKure HD 200WD residue to dry on the surface. Any product allowed to dry on the surface may cause white residue that can be difficult to remove.

- C. Drying Time
 - 1. MasterKure HD 200WD penetrates in approximately thirty (30) –sixty (60) minutes depending on temperature and humidity. Allow each application to penetrate thoroughly before proceeding with additional applications.
 - 2. Allow twenty-four hours after application before opening to wheeled traffic.
 - 3. Following drying, gloss development can be enhanced by buffing and or additional floor scrubbing.

3.04 CLEANING

- A. Clean tools immediately after use with clean water.
- B. Clean up and properly dispose of debris remaining on Project site related to application.
- C. Remove temporary coverings and protection from adjacent Work areas.

- END OF SECTION -