



Chemical® Corporation

StoneGrip® Aromatic Polyurethane

Technical Data Sheet

PRODUCT DESCRIPTION

Freedom Chemical® Corporation's StoneGrip® is a 100% solids elastomeric two-component hand applied aromatic polyurethane, used as a protective or waterproof coating with good chemical and abrasion resistance, its designed for use in pedestrian, or vehicular traffic atmospheres. StoneGrip® is used in horizontal applications on concrete, wood, metal and polyurea surfaces. Its quick gel and set time is convenient and allows for application to proceed while air and substrate temperatures are between 32° F (0° C) and 104° F (40° C).

ADVANTAGES

- ✦ Good chemical resistance
- ✦ Excellent abrasion resistance
- ✦ Excellent for low temperature applications
- ✦ Complies with VOC and SCAQMD requirements
- ✦ Meets USDA criteria
- ✦ No noxious odors
- ✦ Open to pedestrian traffic in 4 Hour, vehicular the next day at 75° Fahrenheit (23.88° C) and 50% humidity
- ✦ Thermal Stability – Excellent

RECOMMENDED USES

- ✦ Bridge Decks
- ✦ Commercial, Retail, Institutional
- ✦ Loading Docks
- ✦ Mechanical Rooms
- ✦ Parking Structures, Rooftop Garages
- ✦ Plaza Decks
- ✦ Podium Slabs
- ✦ Over Asphalt
- ✦ Polyurea Repairs

SURFACE PREPARATION

Surface preparation is the essential first stage treatment of a substrate before the application of any coating. The performance of a coating is significantly influenced by its ability to adhere properly to the substrate material. It is generally well established that correct surface preparation is the most important factor affecting the total success of surface treatment. The presence of even small amounts of surface contaminants, oil, grease, oxides etc. can physically impair and prevent coating adhesion to the substrate.

Be sure that surfaces are clean, dry, and sound and given sufficient profile to obtain adequate product adhesion.

Remove all dust, efflorescence, laitance, salts, curing compounds, dirt, oil, form release agents, and other foreign matter.

Perform an adhesion test prior to starting any coating project.

Concrete should be cured for a minimum of 28 days prior to

product application and have at least 3000 psi compressive and 220 psi tensile strength.

ASTM D 4258-Standard practice for cleaning concrete.
ASTM D 4259-Standard practice for abrading concrete.
ASTM D 4260-Standard practice for etching concrete.
ASTM F 1869-10-Standard test method for measuring moisture vapor emission rate of concrete.
ASTM F 710-08-Standard for preparing concrete floors to receive resilient flooring, section 5.3 ph.
ASTM F 2170-09-Standard test method for determining relative humidity in concrete floor slabs using situ probes.
ICRI 03732: CSP 3-5-Concrete surface preparation.
SSPC-SP 13/NACE No. 6, Surface Preparation of Concrete.

COLOR

Neutral, Grey and Tan – Add color to part-B only.

StoneGrip® is not UV stable – modified aromatic polyureas are known to darken in color when exposed to UV and/or sunlight. This discoloration has shown to have little to no effect on the integrity of aromatic polyurethanes.

PACKAGING

3 gallon kit (1 gallon/3.78 liters) part-A isocyanate and (2 gallons/7.57 liters) part-B resin.

MIXING/PRIMER/COVERAGE/APPLICATION

Mix entire/full package containers of multi-component materials. Do not measure nor mix partial containers of multi-component materials.

Do not dilute StoneGrip® under any circumstances.

Substrate temperature should be greater than 32° F (0° C). Insure that the outside temperature is between 32° F (0° C) and 104° F (40° C) at least 6° (-14.44° C) above the dew point and rising.

Mix primer part-A and part-B (a minimum of 2 minutes is recommended) and apply it to the surface (coverage rates are approximate and may vary based on the roughness/porosity of the concrete and may require more than one coat of primer) with FT-6160, FT-6160-FS, FT-6100-MT for concrete and MT-6175 for metal only, at a rate of 1 gallon (3.78 liters) per 300 square feet (27.8709 m²). Apply with a squeegee, brush, phenolic core roller or spray (primer is not required over asphalt).

Broadcast immediately to refusal washed dry rounded, 30 mesh (595 microns, 0.02320", 0.595 millimeters) sand or less with 6.5 Moh's minimum hardness into the wet primer.

Allow primer to become tack free prior to application of *StoneGrip®*.

Do not apply more primer to substrate than can be coated with *StoneGrip®* the same day or within eighteen (18) hours of application. If primer is not coated with *StoneGrip®* within the allotted time, re-apply primer.

StoneGrip® part-B should be mixed individually prior to combining, add part-A to part-B while mixing, using a mechanical mixer at medium speed making sure not to encapsulate any air. Mix until a homogeneous mixture and color is obtained (a minimum of 2 minutes is recommended).

After mixing thoroughly, immediately pour the *StoneGrip®* onto the horizontal surface and spread evenly over the entire surface using notched trowel or squeegee.

Hand apply a minimum 2 gallons (7.570 liters) of *StoneGrip®* per 100 square feet (9.290m²) in sufficient quantity to obtain a minimum of 32 dry mils (812.8 microns) of *StoneGrip®*. Prior to its full set broadcast to refusal washed dry rounded, 20-30 mesh (841-595 microns, 0.033110"-0.02320", 0.841-0.595 millimeters) sand with 6.5 Moh's minimum hardness into the wet *StoneGrip®* or as required to achieve a slip resistant finish. Do not hand apply more *StoneGrip®* than can be top coated the same day (if required). If *StoneGrip®* is not top coated on the same day as applied, prime *StoneGrip®* before proceeding.

StoneGrip® should be applied in a smooth pattern to establish uniform thickness and appearance.

StoneGrip® is not UV stable.

GripSeal® an aliphatic topcoat to achieve a desired color at theoretical dry film thickness of 3.6 mils maximum (91.44 microns) or 200 square feet per gallon (18.5806m²) using a flat edge squeegee and then back roll. *GripSeal®* topcoat must be applied within twenty four (24) hours of application of application of the *StoneGrip®* (see technical data sheet for mixing and application instructions).

EQUIPMENT CLEAN UP

Immediately clean equipment with an environmentally safe solvent, as permitted by local regulations. Cured or dried material may be removed by mechanical means.

SPECIFICATION AND FIELD ASSISTANCE

Contact Freedom Chemical Corporation for specification assistance.

Jobsite visits by Freedom Chemical Corporations employees or its independent agents are solely for the purpose of determining qualification for warranty.

STORAGE

StoneGrip® has a shelf life of 1 year shelf life from the date of manufacture, in factory-sealed containers.

Storage temperature for part-A and part-B is between 60° F - 90° F (15.55° C - 32.22° C), avoiding freezing temperatures.

Never store directly on concrete surface, always store on pallets.

Keep containers sealed tightly to eliminate any condensation, moisture, or water contamination in part-A or part-B.

LIMITATIONS

The end user should check the suitability of this product prior to its application.

Excess moisture vapor in concrete slabs may result in primer and/or coating to delaminate, discolor or cause improper curing.

Do not open until ready to use.

Freedom Chemical assumes no liability for substrate defects.

Substrates that have previously been coated are subject to absorption, which may affect the adhesion of a new coating.

High temperatures and humidity can significantly affect pot life and the cure time.

Low temperatures and humidity can extend the cure time.

WARNING

StoneGrip® contains Isocyanates.

TECHNICAL DATA

MIX RATIO BY VOLUME.....	1A:2B
POT LIFE @ 68° F (20° C).....	15 MINUTES
VISCOSITY AT 77° F (25° C)	
PART-A	700 – 1200 CPS
PART-B	70 – 190 CPS
SHORE HARDNESS, ASTM D-2240	56 D
TENSILE STRENGTH, ASTM D-412	1873 PSI
ELONGATION, ASTM D-412	88%
TEAR	213 PLI
TOUGHNESS.....	856 PSI
RETURN TO SERVICE: FULL SERVICE 68° F (20° C)	2 HOURS
TOTAL SOLIDS BY WEIGHT, ASTM D-2369.....	100%
TOTAL SOLIDS BY VOLUME, ASTM D-2369.....	100%
BOND STRENGTH, ASTM D4541 (PRIMED SUBSTRATE)	
CONCRETE FAILED ON FT-6160 PRIMER AT.....	>435 PSI SPECIFIC
GRAVITY.....	PART A 1.025
	PART B 1.24
VOLATILE ORGANIC COMPOUNDS ASTM D-2369.....	0 GM/LITER

THE END USER SHOULD CHECK THE SUITABILITY OF THIS PRODUCT PRIOR TO ITS USE.

Incredible Stuff, Friendly People and Exceptional Service™

LIMITED WARRANTY: Read all information in the product data sheets, and material safety data sheets (MSDS) before applying material. Product information and instructions are subject to change without notice. Contact your Freedom Chemical Corporation agent or visit our website for current product information and instructions. Products manufactured by Freedom Chemical Corporation are free of defects and will meet Freedom Chemical Corporations current published physical properties. There are no other warranties given by Freedom Chemical Corporation of any kind implied, or expressed, including any warranty of fitness for a particular purpose, and/or merchantability in connection with this product.

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