



product data

SELECTION & SPECIFICATION DATA

TYPE & DESCRIPTION	140 HS is a 65% solids two-component aliphatic polyester urethane, designed for use on exterior surfaces. 140 HS has a tough durable finish, outstanding impact resistance, abrasion resistance, and resists yellowing.
ADVANTAGES	Excellent durability, adhesion, and gloss retention.
CHEMICAL RESISTANCE	Not affected by water, oil, brine, most acids, and alkalines. For specific recommendations, please refer to Greenstone's Chemical Resistance Guide, or contact Technical Service.
USES	Coating for floors, walls, ceilings, columns, curbs, and pump pads
GOVERNMENT AGENCY	Meets the requirements of the U.S. Department of Agriculture (USDA) for use as an incidental food contact flooring system.

FOR INDUSTRIAL USE ONLY!

- Pot Life - approximately 2 hours 75°F.
- Mix Ratio - 6:1 by volume
- Flash Point - Part A - 75°F
- Flash Point - Part B - 75°F
- Volume Solids - 65% +/- 5% (depending on color)
- Tensile Strength - 4000 psi ASTM D412
- Tensile Elongation - 35% ASTM D412
- Abrasion Resistance - 25mg avg loss ASTM D4060
- Gloss - 90+ at 60 degree reflectivity
- Water Absorption - <1% ASTM D471
- Weight / Gallon - 10.26# / gallon mixed ASTM D1475
- Mixed VOC - 340 g/l
- Dry Film Thickness - 2-3 mils DFT
- Coverage - 320 square feet per gallon at 5 mils wet (3 mils dry film thickness)
- Shelf Life - 1 Year
- Cure Time - hardens in 5-8 hours at 75°F. The warmer the temperature, the faster it cures. Allow a minimum cure of 24 hours for light traffic, and 96 hours for heavy traffic loads and chemical spillage.
- Colors - Clear, Standard Gray, White (Custom Colors Available)

PACKAGING / COVERAGE

- 140 HS Topcoat -**
- 1 Gallon Kit - covers approximately 320 square feet at 5 mils wet (3 mils DFT) - containing the following -**
 - 1 container - Part A (resin)
 - 1 container - Part B (hardener)
- 5 Gallon Kit - covers approximately 1600 square feet at 5 mils wet (3 mils DFT) - containing the following -**
 - 1 container - Part A (resin)
 - 1 container - Part B (hardener)

SUPPLEMENTAL PRODUCTS

100 Topcoat, 150 S Coating, 152 Primer, 133, 330 Mortar

SURFACE PREPARATION AND SUBSTRATES

SURFACE PREPARATION

New Concrete: must have a minimum of 28 days cure, and no curing agents or sealers shall be used. Remove oil, grease or other loose or foreign materials and contaminants. A good bonding tooth, the texture of rough sandpaper, is required to maximize adhesion, with the removal of all glaze. Examples of mechanical surface prep including, but not limited to -

- A. Sandblast with steel shot, fine silica, or other similar material.
- B. Wheel Abrader
- C. Scarify

Existing Concrete: remove all loose, weak concrete, and any paint wax, oil, grease or other contaminants. Once the concrete has been cleaned and neutralized, mechanical surface preparation shall be used to provide a good bonding tooth, a texture of rough sandpaper, with the removal of all glaze. Examples of mechanical surface preparation including, but not limited to -

- A. Sandblast with steel shot, fine silica, or other similar material.
- B. Wheel Abrader
- B. Scarify

Note: Holes and depressions 1/4" or deeper should be prefilled with 350 grout, or a similar system, prior to application. All surfaces must be dry prior to application of polymer system.

Metal Surfaces: Degrease surface prior to sandblasting. Use organic solvents, alkaline solutions, steam, hot water with detergents, or other systems that will completely remove dirt, oil, grease, etc. Blast the surface to near white SSPC-SP 10-70, or NACE No. 2 using a Venturi blast nozzle with 100psi air. To produce the 4 mil minimum anchor pattern or tooth, the blasting media used shall be a properly graded, clean, sharp angular abrasive similar to Humble Abrasive Flint S7 (6-30 mesh), Steel Grit (HG25), or Black Beauty (BB1040).

MIXING AND EQUIPMENT

MIXING

Mix Part A and B thoroughly, with a low rpm "jiffy" type mixer for 2 minutes until completely homogeneous.

THINNER

140 HS Solvent is required. Thin 3-10% by volume, depending on application conditions.

Important! - The working life of the mixed blend is approximately 2 - 4 hours. Mixed materials remaining in a container will produce heat. Keep away from combustible materials. Do not reseal mixed containers!

APPLICATION AND SAFETY

APPLICATION

Caution! Application in direct sunlight, resulting in rising surface temperature, may cause blistering of the materials due to expansion of entrapped air or moisture in the concrete. Concrete surfaces that have been in direct sunlight must be shaded for 24 hours prior to application, and remain shaded until the initial set of the polymer. When the substrate temperature is rising, it is recommended to postpone application.

Substrate temperatures should be 65 to 80° F. Apply by spray, brush or roller. If roller application is used, use only high quality, short nap, 3/8" roller covers. Be careful to over roll, as air entrapment may occur. When spraying, consult the "Safety and Handling of Poly-Isocyanate Bulletin". Do not apply to damp, or wet, concrete.

Minimum application temperature: Do not apply when substrate temperature is below 50°F.

For application, the 140 HS Topcoat resin & hardener should be at a minimum temperature of 75°F. Always spread the material as soon as blended. The pot life is approximately 2 hours, and the working life is approximately 30 minutes.

SPRAY

For standard production type spray guns: types are not limited to -

Gun	FLUID	AIR
Devilbiss JGA-503	E	797
Binks #18	66-SS	63-PB
Graco P800	04	02

For Airless spray equipment :

GRACO® (33:1 or similar) –

High pressure 3/4" inside diameter nylon hose not to exceed 25 feet. All hoses rates 6000 psi.

Inlet pressure to the pump shall be 100 psi.

1500-2200psi with a tip size from 0.015" – 0.017".

ROLLER

Spread the mixture with a medium (3/8") nap roller at a rate of 320 square feet per gallon (5 mils).

CURE TIME - Will harden in approximately 4 hours at 75°F. Recoat time - 6-10 hours at 70°F. The warmer the temperature, the faster the cure. Allow 24 hours, at 75°F, for light traffic, and 96 hours for full cure.

CLEAN-UP - Cured or hardened 140 HS is almost impossible to remove. Clean tools and equipment immediately with hot soapy water, or a mixture a acetone and ethanol.

SAFETY

Observe good personal hygiene. Certain personnel may be sensitive to various types of resins which may cause dermatitis. Avoid contact with skin and breathing of vapor. Read and follow all caution statements on product info bulletin, material safety data sheet and container labels for this product. This bulletin provides standard information for the system and application procedure. Since varying application conditions may not be covered, consult GREENSTONE Technical Service Department for further information.

We guarantee our product to be free of defects in material and workmanship, and to be in accordance with our company quality control standards. All data, statements and recommendations made herein are based upon information we believe to be reliable, but are made without any representation or guarantee or warranty of accuracy and are made with reservation of all patent rights. Our products are sold on the condition that the user will evaluate them, as well as our recommendations, to determine their suitability for his own purpose before adoption. Also, statements regarding the use of our products or processes are not to be construed as recommendations for their use in violation of any patent rights or in violation of any applicable laws or regulations. Liability under any condition shall be limited to replacement of material only. No liability is assumed or implied, for injury to personnel, labor costs, product loss or any other expenses incidental to the structure or operation of the plant and equipment where the system is being applied.