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HST-SERIES HIGH PERFORMANCE URETHANE

Description

The HST Series of high solids polyurethanes, are two component low V. O. C. solvent based materials, designed for demanding industrial applications. These materials are suitable for application to metals, plastics, and other various composite surfaces, with or without pretreatment or primer coatings. The durability and chemical resistance of these coatings make them well suited for a wide variety of finishing requirements both interior and exterior.

When catalyzed and reduced the V. O. C. of the coating is at a maximum of 3.5 lbs. / gal.

Color and gloss can be formulated to match each customer's specifications.

Advantages

- Excellent physical and chemical resistance - Air dry or force dry curing
- Good exterior durability - Ideal for general industrial finishing
- Meets most environmental requirements at 3.5 lbs./gal.
- Applies with conventional spray equipment - Excellent recoatability

Ideal for texturing - Compatible with a wide range of surface pretreatments and primers

Performance Characteristics

GLOSS (60° Geometry):

- Semi Gloss: 20-30%
- Lusterless/Flat: 5%

VISCOSITY: Catalyzed & Reduced:

10 – 12 seconds, #4 Zahn Cup

HARDNESS: 2-3H

FLEXIBILITY: Pass 1/8" 180° Mandrel

COVERAGE: @ 1.0 mil DFT, No Loss:
830 Sq Ft./Gallon

POT LIFE: 4 Hours

DRY TIMES: @77°F, 50% R.H.

- To Touch: 20-30 Minutes
- To Handle: 2-4 Hours
- To Package: 24 Hours
- Force Dry: 15-20 Minutes @ 200-220°F

AIR QUALITY DATA: Catalyzed & Reduced:

- Less than 3.5 lbs. / gal. V O C (420g/l)

SOLVENT RESISTANCE : Double Rubs

- M E K 100+ - Acetone 100+
- Xylene 100+ - Isopropanol 100+
- Gasoline 100+ - Chlorine Bleach 100+

IMPACT RESISTANCE :

- Forward 85 in. lbs. / Reverse 60 in. lbs.

TABER ABRASION:

CS17/1000g: 1000 cycles

- Less than 100 mg loss

SALT SPRAY RESISTANCE: Pass 250 Hours

HUMIDITY RESISTANCE: Pass 500 Hours

SHELF LIFE: 1 Year, Unopened

APPLICATION INFORMATION

MIXING RATIOS: HST-1145 CLEAR: Mix by Volume, two (2) Parts Clear to one (1) Part #601 High Solids Urethane Catalyst to one (1) Part MAK. GLOSSY COLORS: Mix by Volume, two (2) Parts A to one (1) Part #601 Catalyst to one (1) Part MAK. SEMI- GLOSS & FLAT COLORS: Mix by Volume, four (4) Parts A to one (1) Part #601 Catalyst to one (1) Part HST Thinner. These mixtures will stay under the specified 3.5 lbs./gal. VOC limit.

For exterior applications, consult with a Spectrum representative regarding proper mixing ratios to use with the #800 Exterior Catalyst.

APPLICATION: This material may be applied by any conventional spray method. Recommended atomizing air pressure should be between 35 - 45 psi. For pressure pots; Line pressure of 55 - 65 psi., pot pressure between 6 - 10 psi., atomizing air can be adjusted to desired pattern. Dry films should be in the range of 1.5 - 2.5 mils. to obtain the listed performance characteristics. After the application of a smooth basecoat, a 20 -30 minute "flash" time should be allowed before any subsequent coats are applied including the texture coat. Texturing can be achieved by reducing the atomizing air to obtain the desired "spattering" pattern.

CURING: At 77° F, sufficient cure will be achieved after 7-10 days. The finish can also be force cured by heating in a vented oven at 200-220° F for 15-20 minutes, following a 1 hour dry time. A five any set cycle should be allowed before any physical testing is to be done.

SURFACE PREPARATION: All surfaces to be coated must be free of dirt, oils, greases, polishing compounds, fingerprints, and any other foreign matter including oxidation products.

COMPATIBLE PRIMERS AND INTERMEDIATES: Primers: 1006 Series Epoxy Primer, 1012 Series Epoxy Primer, 1009 Series Epoxy Primer, WE2K-720 Waterborne Epoxy Primer, #137 Red Oxide Primer, P-636 Red Oxide Primer, Green Wash Primer.

Intermediates: Spectrafil Urethane Primer Surfacer, 2121 Epoxy Primer Surfacer, Mil-DTL-24441 Epoxy.

SAFETY & HANDLING INFORMATION

FIRE & EXPLOSION DATA: In case of fire use foam, CO₂, or dry chemical firefighting apparatus. The use of self-contained breathing apparatus is recommended for firefighters. Water may be unsuitable as an extinguishing media, but helpful in keeping adjacent containers cool. Avoid spreading burning liquid with water used for cooling purposes.

HEALTH & FIRST AID:

- **EYES:** Safety glasses, chemical goggles, and/or face shields are recommended to safeguard against potential eye contact. If this product comes in contact with the eyes, flush with large quantities of water for at least 15 minutes. Seek medical attention.

- **SKIN:** The use of impermeable gloves is advised to prevent skin irritation on sensitive individuals. If this product comes in contact with the skin, wash with a mild soap and large quantities of water. Seek medical attention if irritation persists.

- **INHALATION:** The use of respiratory protection depends on vapor concentrations above the time-weighted TLV; use a NIOSH approved cartridge respirator or gas mask. If breathing difficulties, dizziness, or lightheadedness occur when working in areas with high vapor concentrations, seek fresh air. If difficult breathing continues, administer oxygen until medical assistance can be rendered. If breathing stops, begin artificial respiration and seek medical attention.

- **HANDLING:** General mechanical ventilation may be sufficient to keep vapor concentrations within specified TLV ranges. If general ventilation proves inadequate, supplemental local exhaust may be required. Keep product containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation, and sufficiently ground containers when transferring this material. Dispose of this product in accordance with applicable local, county, state, and federal regulations.

PRODUCT LIMITATIONS

Do not vary catalyst ratio, this material has been formulated to achieve its optimum performance properties at listed ratios. Do not heat while applying, mixing, or storing. Heat shortens the pot life and shelf life of the materials.

Protect all Spectrum Polyurethane products from moisture, heat, and store inside in ambient conditions.

All recommendations, statements, and technical data contained herein are based upon tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his/her own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his/her use of the product.