

POLY SPRAY-1

PHYSICAL PROPERTIES

WEATHERABILITY:

QUV results indicate that yellowing maybe visible discerned in neutral or off-white in 2 – 3 months continuous exposure. Dark colors such as black may persist for almost a year before oxidative damage may manifest itself as chalking. Physical properties, however, do not typically show significant change for even longer periods of time.

FIRE RESISTANCE:

None. Contact Chemical Design for details.

CHEMICAL RESISTANCE:

Hydrolytic Stability: Recovers after 10 days 150°F immersion. Generally resistant to most dilute aqueous agents when cleaned off 10 hours of contact. Very difficult to stain by virtue of its high hardness and low porosity. Constant or frequent immersion service not recommended.

TENSILE PROPERTIES:

ASTM D-412
Strength: 5626 psi
Elongation: 20%
Yield Strength: 5354 psi
Elastic Modulus: 26,456 psi

TEAR RESISTANCE:

ASTM D-624: 547 lb/in
HARDNESS:
ASTM D-2240
Shore D 69-71

IMPACT RESISTANCE:

Unnoched Izod: 8.0ft* lbs/in @ 73°F

LIQUID COMPONENT PROPERTIES

SOLIDS:

% Nonvolatile (wt): 100%

VISCOSITY:

Poly component: 1100 cps @ 77°F
Iso component: 470 cps @ 77°F

DENSITY:

Poly Component: 8.4 lbs/gal
Iso Component: 9.8 lbs/gal

V.O.C.

Conforms to all Air Pollution regulations. Contains no Volatile Organic Compounds.

TOXICITY:

Iso component contains polymeric isocyanate requiring fresh air supply respirator, gloves, and protective clothing during application.

FLASH POINT:

ASTM D-56 (TCC)
Greater than 200 oF

APPLICATION

Material Preparation: If you are packing your own mixing tubes, power mix both the ISO and POLY components before beginning. If you were supplied with prepacked tubes, mixing is unnecessary.

Equipment:

Plural component hydraulic caulk tube (140 psi min) equipment that may accommodate either 300 ml or 750 ml cylinders, fitted with an atomizer tip if spraying is being performed or alternately with a static mix tube if castings are desired.

Reactivity: Set to touch @ RT ~80 sec

Print Free @ RT 5-7 min

Cure Time:

Applied coating will set in 7 minutes at 70°F, depending on film thickness, liquid material temperature and the substrate temperature. Product can be placed into service after twenty four hours of cure time at 70°F minimum. It is encouraged to begin priming or painting the plastic at the first sign of cure (typically 7 minutes) to maximize adhesion. Pretest untried paint for adhesion!

MIXING

Volume:

1 unit ISO : 1 unit POLY by volume

Weight:

1 unit ISO : 0.861 units POLY by weight

DESCRIPTION:

Poly-Spray™ is a 100% solids, one part Iso to one part poly by volume, moderately fast cure polyurethane coating.

USAGE:

Poly-Spray is a plural component hydraulic (piston-proportioned) spray applied coating available in 1500 ml sets that have been found to have the following applications (among others):

- Impact resistant coating for the protection of easily deformable substrates such as EPS and insulative foams.
- Structural plastic for use in part fabrication where only a moderate level of impact resistance is required.
- Plastic coating which may be textured to splash protect drywall, wood or other architectural substrates from many common liquids.
- Aromatic base coat used to provide a continuous surface for stapled wood constructs.
- Structural for foam sculptures.
- Waterproof encapsulating material.
- Small castings measuring less than 1500 ml in total volume (with static mix tip).

COLOR:

Neutral is typical. Many other colors may be available upon request. Contact Demand Products for details.

Corporate Office: Demand Products, Inc. - 1055 Nine North Drive - Alpharetta, Ga 300041 USA - (800) 325-75405 - www.demandproducts.com. This information and technical advice provided herein are believed to be reliable and accurate to the best knowledge of Demand Products, Inc., as based on tests and should serve only as a recommendation. Demand Products makes no representations or warranties of any kind, expressed or implied, including but not limited to all implied warranties of merchantability or fitness for use or a particular purpose for the product. Demand Products makes no representations or warranties as to the results of the use of the product and assumes no obligation or liability in connection therewith. Demand Products is not liable for any incidental or consequential damages of any sort from use of this product. The information provided herein is subject to change at any time without notice. Information changes may include, but are not limited to, commercial and technical changes, changes in pricing, physical characteristics and packaging.