Polyguard HBPU FG8448

HYBRID POLYURETHANE

Product Description

Polyguard HBPU FG8448 is a two-component, high-build, 100% volume solid hybrid polyurethane coating. It provides excellent durability, chemical resistance, aesthetic properties, gloss, and color retention for longer period of time. The component A is a base consisting of superior-quality polyol and component B is a curing agent.

Typical Uses

This coating system is designed for industrial exposures over prepared steel, wood, concrete, and plastic surfaces (with etching primer). It offers exceptional protection in marine applications, sewage and seawater tanks, pipes, and wastewater treatment facilities. It serves as a heavy-duty structural coating for moderately to severely corrosive environments, including sheet pilings, void spaces, chain lockers, and liner for clarifiers.

Features

- Excellent scratch resistance
- Bio-bacterial resistance
- Superior corrosion resistance in severely corrosive environments
- Weatherproof protection for long-term outdoor performance
- Complies with AWWA C222 standard

Technical Properties

Color / Shades	Black
Gloss	Smooth & glossy
Volume Solids	100%
Specific Gravity	1.54 Kg/L
Mix ratio	3:1 by volume
Typical Thickness	250-1000 micron [9.8-39.4 mils] dry equivalent to 250-1000 microns [9.8-39.4 mils] wet
Coverage	2 m^2/liter at 500 microns DFT (theoretical)
Flash Point (Typical)	162^{0}C (323.6^{0}F)
VOC	Nil
Reducer/Thinner	Not applicable
Cleaner	Thinner C1

Drying Time

Surface Temperature		**30^{0}C**
Touch dry		2-2.5 Hours
Surface dry		3-4 Hours
Hard dry		Overnight
Recoat	Minimum	24 Hours
	Maximum	7 Days
Cure to Service		7 Days
Pot Life		30-45 Mins

The drying times mentioned are based on a dry film thickness of 500 microns (19.7 mils) under standard conditions.

Surface Preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504:2000.

Iron & Steel

Abrasive blast clean to a minimum SA 2½ (ISO 8501 1:2007) or SSPC-SP6.

Use suitable abrasive to achieve a sharp & angular profile of 50 - 75 µm, [Medium (G) (ISO 8503-2).

Other surfaces

The coating may be used on other substrates, please contact TRPL representative for more information.

Application

Application Method	Thinning	Application Parameters
Airless Spray	-	Nozzle pressure: 200 bar [20 MPa] Nozzle tip sizes: 35 to 42 Thau Spray angle: 90°C - 110°C
Brush/Roller	-	Recommended for stripe coating, small areas, and small touch-ups

If a brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. Spray data are indicative and subject to adjustment.

Note

- Mix 3 parts of Component A (base) thoroughly with 1 part of Component B (hardener) using an online static mixer, ensuring the paint is fully homogeneously mixed before spraying. Ensure 100% ionization of the spraying film during paint application.
- Clean the nozzle, static mixer, and spray equipment immediately after use to prevent clogging due to the short pot life of high-build solvent-free hybrid polyurethane paint.
- Use high-temperature or heated hoses of good quality, optimum length, and recommended pressure.
- Hose length between mixer and gun shall be less than 1.0 meters.
- Store both paint components at ambient temperature; however, for stripe/repair coating, a lower paint temperature can help achieve sufficient pot life.
- If recoating is to be done after 7 days, clean the surface thoroughly and sweep blast.
- System Cleaning: Flush thoroughly the application equipment with Thinner C1, before and after the application.
- Filter Size & Cleaning Procedure: Filters should be removed, both in the pump and the spray gun after a certain frequency to avoid coating system chock-up and filters recommended sizes shall be 60 and 80 mesh to smooth and trouble-free operation.

Application Conditions

- The temperature of the substrate should be minimum 10°C and 3°C above the dew point of the air and maximum 60°C.
- Best coating adhesion is obtained by utilizing the induction time indicated after mixing of the two components and with relative Humidity below 85% during the application process.
- The temperature and the relative humidity should be measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying.
- The coating should not be exposed to oil, chemicals or mechanical stress until cured.
- Application Temperature: Heat Part-A (Base) to a minimum of 55°C and Part-B (Hardener) to a minimum of 45°C, indirectly and ensure both components reach the mentioned temperatures before transferring the paint from the main tank for application.

Storage

Shelf Life

12 Months, unopened

Storage Conditions

The product must be stored in accordance with national regulations. Keep the containers in a cool and dry place and well-ventilated area with no direct source of heat or light. Containers must be kept tightly closed when not in use.

Safety: Handle with care. Before & during use, observe all safety labels on packaging and paint containers, consult Material Safety Data Sheets, and follow all local or national safety regulations. Avoid inhalation, avoid contact with skin & eyes, and do not swallow. Take precautions against possible risks of fire or explosions as well as protection of the environment. Apply only in well-ventilated areas.

Disclaimer: The information in this document is given to the best of TRPL's knowledge, based on laboratory testing & practical experience. TRPL products are considered semi-finished goods, as such products are often used beyond TRPL's control. TRPL can not guarantee anything but the quality of the product itself. Minor product variations may be implemented to comply with local requirements. TRPL reserves the right to change the given data without further notice. User should always consult TRPL for specific guidance on the general suitability of the product for their needs and specific application practices.