POLYGUARD-HBSBLE-FC-261015

FLOW EFFICIENCY COATING

Product Description:

POLY GUARD-HBSBLE-FC-261015 is a solvent-based, two-component, high-build epoxy paint coating system designed to protect steel pipes, fittings, and other metal surfaces from various types of corrosion. It significantly improves flow efficiency for gas transmission pipelines and decreases line maintenance costs. This product has been formulated to meet ISO 15741 and API RP5L2 standards.

Using a heavy-duty airless spray system, the product can be applied in a thin coat. It features excellent mechanical properties and strong resistance to gas and fluid absorption, making it suitable for transport and storage. It also reduces flow resistance in cross-country pipelines and provides corrosion protection while isolating metals from fluids during transportation.

Typical Uses:

This product is a heavy-duty coating for steel exposed to abrasion, ideal for solvent-based applications. It is suitable for internal flow coating, girth weld coating, and the restoration of old pipelines. It can also repair small areas of fusion-bonded epoxy coatings. Additionally, it provides strong lining for the storage and transport of anti-corrosive gases and fluids in tanks, pipelines, and fittings.

Features:

- High Abrasion and chemical resistance.
- Excellent and long-life corrosion protection.
- Obtained a wide range of (75 microns to 250 microns) DFT in a single run during heavy-duty airless spray application.
- Excellent range with atmospheric as well as operating temperature.
- Highest volume solid. It is most convenient for user.
- Complies the requirements of ISO 15741/API RP5L2 standards.
- Provide excellent flexibility and bonding strength.

Technical Properties:

Color / Shades	Red & Brown
Gloss	Smooth & Glossy
Volume Solids	75 ± 2%
Specific Gravity	1.4 ± 0.2 Kg/L, mixed
Mix ratio	3:1 by volume
Typical Thickness	70-250 microns [2.7-9.8 mils] dry equivalent to 93-333 microns [3.6-13.11 mils] wet
Coverage	7.5 m^2/liter at 100 microns DFT (theoretical)
Flash Point	105^{0}C (221^{0}F)
VOC	300 g/Liter (Approx.)
Reducer/Thinner	Thinner E1
Cleaner	Thinner C1

Drying Time

Surface Temperature	25^{0}C
Touch	1 to 2 hours
Stack Dry	3 to 4 Hours
Hard Dry	Overnight
Cure to Service	7 Days
Pot Life	45 to 90 Minutes

The drying times mentioned are based on a dry film thickness of 70 - 250 microns (2.5 – 9.8 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.

Bare Steel:
Cleanliness: Blast cleaning to min. Sa 2 ½ (ISO 8501-1).
Roughness: Using abrasives suitable to achieve Grade
Medium G (30 - 80 µm, Rz scale) (ISO 8503-2).

Other Surfaces:
The coating may be used on other substrates. Please contact TRPL for more information.

Application

Application Method	Thinning	Application Parameters
Spray	NA	Use a heavy-duty multi-component airless hot spray system with a tip pressure of 200 to 220 bar.
Brush and Roller	**NA**	For stripe coating or small areas, it is crucial to achieve the specified dry film thickness and a uniformly coated surface.

For brush application, use nylon or polyester bristles. A 3/8" woven roller cover with a solvent-resistant core should be used for roller application.

Note:
- The material is supplied in two containers as a complete unit. Always mix the entire unit in the proportions provided.
- Stir the base thoroughly for optimal results and homogeneity.
- Mixing 3 parts Comp. A (base) is to be mixed thoroughly with 1 part Hardener, Comp.B (curing agent) through an online static mixer, and ensure the paint mix is homogenous before spray. It should be 100 % ionization of spraying film during application on substrates.

Application Conditions

Substrate Temperature: Must be at least 10°C and 3°C above the dew point of the air to prevent condensation.
Induction Time: Follow the specified induction time after mixing components to ensure optimal coating adhesion.
Relative Humidity: This should be maintained below 85% during application to achieve desired results.
Environmental Monitoring: Regularly measure temperature and humidity in the application area to ensure compliance.
Ventilation: Ensure adequate ventilation in confined spaces for proper drying and curing.
Curing Period: Protect the coating from exposure to oil, chemicals, or mechanical stress until it has fully cured.

System Cleaning

Flush thoroughly the application equipment with Thinner C1 prior and after to application.

Pressure at nozzle: 20 MPa (200 bar.)
Nozzle tip sizes: 21 to 27 thau depend on production rate.
Spray angle: 90° - 110°

Filters size and cleaning procedure:
Filters should be cleaned, both in the pump and the spray gun after a certain frequency to avoid coating system chock-up and filters' recommended sizes shall be 80 and 100 mesh to smooth and trouble-free operation.

Paint Transfer

Part-A Base arid Part-B Hardener shall be Heat indirectly at 50°C to 60°C as well as 45°C to 55°C respectively before transfer paint from barrels to main heated tanks through bags filters, weather temperature less than 10 0C otherwise no need of preheat of flow coat liquid epoxy paint. The coating system shall be cleaned thoroughly after a stoppage in case of a 6 to 8-hour stay.

Additional Notes

- It is of vital importance that the nozzle and other parts including static mixer of the spraying equipment are cleaned properly directly after the work is done due to the short pot life high build liquid epoxy solvent less paint.
- The hoses should be used high pressure of good quality and no longer than necessary.
- Hose length between mixer and gun shall be less than 1.5 meter.
- Preferably store both paint components at ambient temp and shaded area.
- Be aware that higher storage temperature will shorten the life of the paint.
- For stripe/repair coating, however, a lower paint temperature may be favorable, in order to get a sufficient pot life.

Storage

Shelf Life: 12 Months, Sealed Condition

Storage Conditions: Store indoors at 4.5^{0}C [40^{0}F] to 38^{0}C [100^{0}F]
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.