

# TECHNICAL DATA SHEET | Section 7.4

# POLYGLAZE® 400FR/400FR-C/400FR-SC

Fire Rated, Aliphatic Polyurethane Topcoat

# **Product Description**

Polyglaze® 400FR/400FR-C/400FR-SC is an aliphatic, two component, liquid applied, moisture cured, polyurethane coating. Polycoat Products manufactures products in different VOC's ranging from 100 to 340 gms/liter to comply with VOC requirements in various regions. Make sure to use the right grade of product which complies with VOC regulations/ requirements applicable as per federal, state, statutory, counties, cities and local bodies at the place of installation.

#### **Features**

- Durable
- Fire Retardant
- UV Resistant for Gloss Retention

## **Typical Uses**

- Concrete
- Heavy Pedestrian Traffic
- Plywood
- Vehicular Traffic

# **Packaging**

1-Gallon	1 gallon (3.78 liters) can		
5-Gallon	5 gallon (18.9 liters) pail		
55-Gallon	55 gallon drum, net fill 50 gallons (189 liters)		

# **Colors**

For Polyglaze® 400FR (340 VOC): Tan

For Polyglaze® 400FR-C (250 VOC): Tan, Dolphin Grey, and Tint-White. Tint-White with color packs are available in Stone Grey, Battleship Grey, Indian Sand, and Ash Brown.

For Polyglaze® 400FR-SC (100 VOC): Tan, Dolphin Grey, and Tint-White. Tint-White with color packs are available in Stone Grey, Dolphin Grey, Battleship Grey, Tan, Indian Sand and Ash Brown.

Custom colors are also available. Minimum order of 250 gallons (945 liters). See color chart for special provisions. Contact Polycoat Products for more information. For pretinted standard color other than stock color, a minimum of 150 gallons (567 liters) is required.

# Coverage

The approximate coverage is 1 gallon/100 sqft (0.41 l/sqm). Coverage rate will depend on surface roughness and porosity.

# **Mixing**

The volume mixing ratio is 1 part Polyglaze® 400FR/400FR-C/400FR-SC Side-A Powder to 5 parts of Polyglaze® 400FR/400FR-C/400FR-SC Side-B Liquid.

# Technical Data (Based on Draw Down Film)

	Polyglaze 400FR (340 VOC)	Polyglaze 400FR-C (250 VOC)	Polyglaze 400FR-SC (100 VOC)
Coverage Rate	1 gal/100 sqft 0.41 l/sqm	1 gal/100 sqft 0.41 l/sqm	1 gal/100 sqft 0.41 l/sqm
Dry Film Thickness per Coat	11 ± 2 mils 279 ± 50 microns	11 ± 2 mils 279 ± 50 microns	13 ± 2 mils 330 ± 50 microns
Hardness, ASTM D2240	95 ± 5 Shore A	95 ± 5 Shore A	95 ± 5 Shore A
Specific Gravity	1.36 ± 0.1	1.42 ± 0.1	1.49 ± 0.1
Total Solids by Weight, ASTM D2369	79 ± 2%	79 ± 2%	82 ± 2%
Total Solids by Volume, ASTM D2697	68 ± 2%	71 ± 2%	77 ± 2%
Viscosity at 75°F (24°C)	2400 ± 500 cps	2700 ± 500 cps	3500 ± 500 cps
Volatile Organic Compounds	2.33 lb/gal 280 gm/liters	1.67 lb/gal 200 gm/liters	0.71 lb/gal 85 gm/liters

**Step 1:** Mix the Polyglaze® 400FR/400FR-C/400FR-SC Liquid using a mechanical mixer at slow speed until a homogeneous mixture and color is attained. Use caution not to whip air into the material as this may result in pinhole blisters and/or shortened pot life. Do not mix in an up and down motion.

**Step 2:** Remove plastic bag of Polyglaze® 400FR/400FR-C/400FR-SC Side-A Powder from the 6 gallon (22.68 liter) pail and set aside. Fill this empty container half full with the pre-mixed Polyglaze® 400FR/400FR-C/400FR-SC Side-B Liquid. Slowly add Polyglaze® 400FR/400FR-C/400FR-SC Side-A Powder, mixing with mechanical mixer.

Ensure that all powder is transferred from the bag to the container. Continue mixing until no lumps are present, again being careful not to entrap air in the mixture.

Step 3: When Polyglaze® 400FR/400FR-C/400FR-SC Side-A Powder has been thoroughly blended into Polyglaze® 400FR/400FR-C/400FR-SC Side-B Liquid add the rest of Polyglaze® 400FR/400FR-C/400FR-SC Side-B Liquid. Mix with mechanical mixer until uniform mixture is attained. Mixed material must be used within 2-4 hours of mixing the two components.



#### . . . . . Application

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> For best results, airless sprayer or phenolic resin core roller may be used but extra care should be taken not to cause air bubbles.

> Requires a continuous coating application to minimize lines and/or streaking.

## Curing

At 75°F (24°C) and 50% relative humidity, allow each coat to cure 16 hours. Cure time will vary depending on temperature and humidity. If more than 48 hours passes between coats, re-prime the surface with Polyprime<sup>®</sup> U before proceeding.

Allow 24 hours before permitting light pedestrian traffic and at least 72 hours before permitting heavy pedestrian or vehicular traffic on the finished surface.

Uncured Polyglaze® 400FR/400FR-C/400FR-SC is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application.

Low temperature and/or low humidity extend the cure time.

If accelerated curing is required, add one guart (0.95 liter) of Polyglaze® Hardener in a 5 gallon pail (18.9 liters) of Polyglaze® 400FR/400FR-C/400FR-SC Side-B Liquid and mix thoroughly. This accelerated Polyglaze® 400FR/400FR-C/400FR-SC will cure in 6-8 hours at 75°F (24°C) and 50% relative humidity. If Polyglaze® Hardener is used to accelerate curing, the re-coat window for the subsequent coat is reduced to 24 hours after cure. If the recoat window has passed, then solvent wipe the surface with VOC-compliant solvent and re-prime surface.

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately

#### **Storage**

Polyglaze® 400FR/400FR-C/400FR-SC has a shelf life of 1 year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

### Limitations

The following conditions must not be coated with Polycoat deck coatings or systems: split slabs, buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, and non-structural lightweight concrete. On

grade slabs may receive Polycoat system coatings provided a moisture-vapor transmission test is first performed. Please contact Polycoat's technical department with the results.

With regard to coating asphalt surfaces, please contact Polycoat's technical department.

Surfaces must be dry, clean and free of foreign matter. Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications. Surface may be slippery when wet. Containers that have been opened must be used as soon as possible. Do not dilute under any circumstance.

#### Warning

This product contains Isocyanates and Solvent.

Limited Warranty: Please read all information in the General Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. These products are for professional use only and preferably applied by professionals who have prior experience with the Polycoat Products materials or have undergone training in application of Polycoat Products materials. Published technical data and instructions are subject to change without notice. Contact your local Polycoat Products representative or visit our website for current technical data, instructions, and project specific recommendations.

Polycoat Products warrants its products to be free of manufacturing defects and that they will meet Polycoat Products' current published physical properties. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by Polycoat Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Polycoat Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Polycoat Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Polycoat Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

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