Technical Data Sheet
EpoGlass PU

Code: 65

Product Description:

Two-component, effective acrylic aliphatic - polyurethane topcoat. Material creates a highly durable coating layer, suitable for marine industrial atmosphere and excellent resistance to UV and long-term gloss.

Technical Data:

Color: all RAL colors
Gloss: glossy
Volume Solids: 55±2%
Dilution/cleaning: Solvent 114
Theoretical Coverage: 5.5m2/L/100microns
Mix Ratio: 8 : 1 (by volume)
Induction period: 10 minutes
Pot life after mixing: 6-8 hours (at 25˚C)
Environment temperature during application: 10-30˚C
Drying time (at 20-25˚C)

	25˚C
To touch	4-8 hours
To cure	24 hours
Final	7 days

Shelf life: 12 months (at 20-25˚C)

** These figures are given as a guide only. Factors such as air movement, humidity, work equipment, must be considered.*

Features:

- UV resistance
- High wear resistance
- High resistance to any kind of external conditions
- Corrosive atmosphere and marine industrial environment
- Maintains shade and shine for years

Use:

- Designed as a top coat for internal and external use
- Designed as a coat together with epoxy or polyurethane based systems.
- Steel structures, Concrete

Technical Data Sheet
EpoGlass PU

Code: 65

Application equipment:

Application method	Solvent	Pressure	Nozzle diameter	Dilution
Brush/roller	114			10-15%
Spray	114			10-15%
Airless spray	114	2-3	0.013"-0.017"	10-15%

Physical properties:

Test Method	Property	Result
Adhesion strength	ASTM D4541	540N/cm²
Abrasion Resistance	ASTM D4060 (CS17 wheel, 1000 cycles, 1 kg load)	Loss weight
UV Resistance	3000 hours	Passes
Dry Heat Resistance	ASTM D2485	90˚C
Moisture Condensation Resistance	ASTM D4585	No rust, blistering or delamination
Flexibility	ASTM D522	Passes
Pencil Hardness	ASTM D3363	4H
Salt Fog Resistance	ASTM B117 (2000 hours)	Rating 10 per (ASTM D 610 for rusting) Rating 8 per (ASTM D 714 for blistering)

Physical data were obtained by testing the recommended system which was applied on steel plate cleaning level SA 2.5 (in accordance with the Swedish standard SIS 055900).

Mixing:

Appropriate mixing of the components of the product is essential for proper and correct application of the flooring system.

Mix part A. Add the hardener (part B) to the base component (part A) and mix thoroughly, until uniform. It is important that all components are mixed thoroughly by a mechanical mixer so that no unmixed components remain.

Packaging:

5L (A – 4.5L / B – 0.5L)
18L (A – 16L / B – 2L)

Surface preparation:

The surface must be clean, dry, stable and without loose areas or parts. All residues of fats, dust, dirt, salts should be fully removed. Leveled, stable, pollutant free infrastructure ensures the long lifespan of the system.

<u>New concrete:</u>

Casting of new concrete can be coated 4 weeks (28 days in a temperature of 25°C) following the casting and with humidity content that does not exceed 4% in a 2.5cm depth under the surface. Concrete must have a compressive strength of at least 30Mpa; in case this requirement does not met, other recommended solutions for reinforcing the infrastructure should be applied. The preparation of the surface should follow the requirements in the SSPC-SP13 standard in order to get a flat concrete surface that is dry, pollutant free, free from cement water loose parts and dust, with mechanical strength and upper level that are sufficiently porous and enable proper absorption of the coating. Remove completely pattern oil, curing materials, salts, efflorescence, cement water or any other materials using sandblasting, shot-blasting, mechanical milling, diamond polish or acidic etching. In addition, it is important to ensure that the pH of the concrete is between 10 to 12.

In any case need to meet the following standards:
ASTM D4259 - Concrete preparation for milling the surface
ASTM D4260 - Concrete preparation for polishing the surface
ASTM F1869 - Inspecting humidity content in the concrete

Holes, depressions, mechanical impacts, gravel pockets, cracks, seams, corrugation (no flatness) etc. require specific attention especially for concrete pull off lower than 25 Mpa or porous concrete with high absorption ability.

This stage should be performed following the completion of the mechanical preparation stage.

Impregnating the surface with epoxy thinner free resin with low viscosity and high penetrability typical EMR 1322 H.P or a number of layers of thinned epoxy type transparent eposeal, until the minimal pull off for proper adhesion is achieved. At the end of the process the concrete pull off should be at least 25Mpa. Porous surface with high absorption ability may lead to "bald" areas and inconsistent coating and in this case the impregnation process above should be performed as well.

Holes, depressions, mechanical impacts, gravel pockets:

Filling, closing and leveling the flaws should be done with epoxy putty "T.S.E.T 702" (intended for vertical and horizontal areas) or using epoxy grout "HRV". Before epoxy putty / epoxy grout application need to ensure that all loose parts are removed, there is no dust, have to reach steady edges and apply the proper epoxy primer.

Shrinking cracks – thermal cracks:

Usually caused during the drying of the concrete as a result of an improper concrete content or improper curing. In case crack's width does not exceed 1mm, these cracks should be sawed to a depth of up to 8mm and a width of up to 4mm. Dust should be cleaned and epoxy primer (Eposeal) should be applied on the edges. After that you can fill in and close the crack with epoxy putty (T.S.E.T 702) until the concrete level.

Dynamic cracks, sawed cracks:

Cracks caused by movements or suspected cracks. Cracks wider than 1 mm should be sawed to a depth of 10 mm and a width of 5 mm, after which it is necessary to clean and apply the epoxy primer (Eposeal) around the edges. After drying, apply epoxy SL 300 Flex to fill the entire sawn space to the level of concrete. In the case of

a filling draft, repeat the procedure. Sawing cracks do not require expansion (unless they are filled with elastomeric material), just cleaning, priming and the SL 300 Flex layer are required.

Not flat surface (corrugated surface):

This surface should be treated after finishing the surface preparation and before applying the coating system. The surface difference can be repaired using epoxy putty (T.S.E.T. 702) or by applying an intermediate thin layer of epoxy resin with addition of a 50% SL Filler. Deformation joints: These joints are usually planned for a width of 25 mm and their purpose is to provide certain movements of the building. The edges of the joints should be polished until the surface becomes clean and stable, for carrying out vacuum cleaning. Apply a suitable primer and fill with a standard sealing mastic intended for expansion joints. The application of mastic should be carried out after inserting an additional gasket to design the depth of the joint (50% of its width).

Old concrete:

Surface preparation is carried out in a manner similar to the new concrete surface. If the surface is impregnated with oils, fuel, chemicals or contaminants, you must clean it with industrial detergents in accordance with ASTM D4258. This process is carried out before the surface is prepared according to the instructions in the section "New concrete". After the rinsing, the surface must be clean, free from contaminants and completely dry. In case that erosion of concrete has created a surface with a compressive strength of less than 25 MPa, and also in the absence of a single flat surface, you must perform the actions in accordance with the appropriate recommendations for these situations. It is recommended that the process for the removal of contaminants be carried out with an acid-alkyl control, according to ASTM D4262.

Metal and iron:

Spraying aggregates using compressed air (it is recommended to manually remove peeling layers of paint, rust peels and welding residues using manual or pneumatic scrapers before spraying) to get a surface level in a cleaning level so SA 2.5 (in accordance with the standard SIS 055900) in order to remove rust, loose parts, old paint, fats etc. from at least 95% of the area (in accordance with the standard SSPC-SP10). The profile that is achieved on the surface should reach roughness level of 80 microns. You should polish and round all the edges, sharp corners including welding stripes until you get a minimal radius of 6mm. Perform dust cleaning using air pressure (fat and humidity free) or using a vacuum cleaner. Perform strip coating in all welding areas, connections, screws, sharp corners in order to prevent the formation of early flaws in these areas. In cases when aggregate spraying cannot be performed use mechanical or manual tools for careful cleaning using a disc, steel brush, sandpaper and scraper to remove mill scales, rust, layers of loose paint and pollutants up to a cleaning level of ST-3 in accordance with the standards SSPC-SP3, SSPC-SP11. At the end of the preparation period the surface must be without sharp corners, rough, without loose parts, dust, dirt, oils or any other pollutant in order to ensure proper adhesion of the coating to the infrastructure. The primer must be applied to the clean areas in the quickest possible manner, as close as possible to the end of spraying of every segment in order to prevent the accumulation of pollutants or rust on the surface.

Galvanized iron:

Remove dust, fats and other pollutants from the surface by washing with detergents and clean water in accordance with the instructions in the SSPC-SP1 standard (Solvent Cleaning). After cleaning, the surface must have a roughness (use chemical or mechanical instruments if necessary). The roughness process is carried out to the level Sa1 at the depth of the profile of 7-12 microns (in accordance with the standard SSPC-SP7 abrasive

blasting) or mechanical roughness using a steel brush and / or sandpaper. In case of corrosion the surface must be cleaned manually or by proper mechanical equipment in accordance with SSPC-SP2 SP3 standard (Hand or Power Tool Cleaning). In order to remove fats and zinc salts from the metal, first of all clean with solvents and after that clean using mechanical tools. For thorough cleaning, you should often replace the solvent and cleaning tool. A more effective method is washing with emulsified or warm high pressure with the use of proper detergents.
Before painting the area must be clean and dry. Strip coat all the welding areas, connections, screws, sharp angles in order to prevent the formation of early flaws in these areas.

Aluminum and stainless steel:

See instructions in the galvanized iron section.

Painted areas:

When the existing coating is uniform and the bond strength is above 1 N/mm2, clean and remove greasy materials, contaminants and any other particles from the surface. Homogeneous, solid surface should be slightly rough. Use sandpaper with fine grain, if necessary. In case of any doubts regarding the final result, you must completely remove old coating or, alternatively, apply an intermediate coating (adhesive layer) in accordance with the manufacturer's recommendations.

Warranty & Safety Precautions:

The information herein is believed to be reliable, but unknown risks may be present. Epolac warrants only that the materials shall be of merchantable quality. This warranty is in lieu of all other written or unwritten, expressed or implied warranties. Epolac expressly disclaims any warranty of fitness for a particular purpose, or freedom from patent infringement. Accordingly, Buyer assumes all risks whatsoever as to the use of these materials. Buyer's exclusive remedy as to any breach of warranty or negligence claim shall be limited to the purchase price of the materials. Failure to strictly adhere to recommended procedures shall relieve Epolac of all liability with respect to the materials or the use thereof.

Refer to the SDS sheets before use. FOR PROFESSIONAL USE ONLY.
Technical data sheet and instructions are subject to change without notice.
Contact your Epolac representative for additional information.