

PROTECTION FOR ENVIRONMENTS SUBJECT TO CHEMICAL ATTACKS AND SEVERE MECHANICAL STRESS

DESCRIPTION

Two-component Novolac Epoxy Coating, high thickness and high solids, low solvent content and room temperature cure. Formulated with glass flakes that provide excellent barrier corrosion protection and high temperature stability, in addition to great resistance abrasion and impact. Meets Petrobras Standard N-2912 type III.

APPLICATIONS

Product developed for application in oil tanks with fixed or floating roof with water formation in refineries and terminals, fixed-roof tanks for acidic water, oil production stations, naphtha tanks, diesel, gas separators and oil treatment, storage tanks crude oil, fuel oil, light products - fuel and solvents, ballast tanks and marine structures, industries such as: pulp and paper, fertilizers, steel, petrochemicals and mining. Meets Petrobras Standard specifications N-2913.

CHEMICAL BASIS

- Novolac Epoxy Polyamine
- Pigment: Glass Flake

PHYSICAL PROPERTIES

Solids by weight	96 ± 1% (Petrobras N-1358)
Pot life at 25°C	45 - 50 minutes
Dry thickness	800 µm
Dry thickness for cross coating	400 µm
Maximum wet work temperature	120 - 150°C
Theoretical Consumption Dry thickness 400 µm for coating	2.4 m ² /L *
Touch free at 25°C	6 h
Total Cure at 25°C	168 h
Volume Ratio A/B	4/1
Weight Ratio A/B em peso	5/1
Colors	Gray, white, green

* The theoretical consumption is calculated based on solids by volume. Practical performance depends on the application process, including losses by porosity, roughness, applicator experience, geometry of parts, material losses in hoses, clogging of equipment, spatter, paint preparation, temperature and relative humidity of the environment. All these parameters must be considered for paint consumption.

APPLICATION PROCEDURES

SURFACE PREPARATION

The surface must be dry, free of oil, dirt, dust, mil scale, weld spatter or other contaminants to ensure a good adhesion.

Carbon steel in immersion service: Remove all oil and grease from the surface through a cleaning solvent. Sandblast grit aluminum oxide or steel until surface finish Sa 2 ½ (almost white metal) according to ISO 8501-1 (equivalent to the Swedish standard SIS 05 5900-67). The blasting abrasive must promote an anchor profile with roughness of 100 µm ± 25 µm, needed for perfect adhesion of the coating to the substrate carbon steel for dry thickness recommended.

CONDITIONS OF APPLICATION

The paint should be applied at temperatures between 15-50° C, and relative humidity 85% Max.

MIX

1. Homogenize the content of each Part (A and B) separately using mechanical agitation or pneumatic using a helical propeller coupled to a low speed mixer. Ensure that none sediment is retained at the bottom of the packages.
2. Add Part B to Part A, in the proportions (volume) indicated. Homogenize using low-speed mechanical or pneumatic agitation using a helical propeller coupled to the mixer to prevent the incorporation of air and obtain a homogeneous product. Avoid mixing for long periods.
3. Do not dilute or heat Parts A and B.
4. To clean tools and equipment, use EP solvent.

APPLICATION

AIRLESS

- Apply the product through HVLP Air spray gun on the blasted surface in two coats with a thickness of 350 to 400 microns per layer.
- The second coat should be applied with range of coats between 8 to 16h.
- You can apply multiple layers until the thickness recommended as long as it does not exceed 24 hours of interval between the layers. If this happens proceed with rigorous sanding with coarse sandpaper to confer suitable roughness profile, remove all dust originated in the operation. Do not apply the product after the useful life of the mixture has passed.

BRUSH

- Recommended only for repairs, screws, nuts, cordons of soda and sharp corners.

ROLL

- Using rollers with special Lamb's wool or synthetic wool for epoxy paint.

APPLICATION EQUIPMENT

AIRLESS

Airless	Pump 70 : 1 or higher
Fluid Press	3,500 - 4,500 psi
Hose	3/8" inner diameter
Noose	0.027" - 0.035"
Dilution	Not recommended

Note: Changes in pressure and in sizes of nozzles may be necessary to improve the characteristics of spraying. The data serve as a guide and may be used similar equipment.

CURE PROCEDURE

The total cure is obtained after 7 days at 25°C.

PACKAGING

COMPONENT	KIT GALLON	KIT 18 L
A	Gallon metallic 3.6 L contents 2.88 L	Bucket 18 L contents 14.4 L
B	¼ Gallon metallic contents 0.72 L	Metallic Recipient 5 L contents 3.6 L

CLEANING THE EQUIPMENT AND TOOLS

Following the application, and before the resin cures, all equipment and tools that have come in contact with the glass flake should be cleaned with solvent EP. The hardened material not removed by solvent cleaning should be burned off.

STORAGE

When stored in the unopened original containers at 25°C the shelf life of all glass flake materials is 12 months.

SAFETY

HEALTH AND SAFETY AT WORK

Avoid all contact with skin or eye. The environment during the application should be well ventilated to reduce inhalation of vapors. Workers should wear adequate breathing apparatus in confined spaces. Open flames, welding operations and any other spark inducing activity are not permitted near the work area. Smoking should not be allowed.

Some people are sensitive to contact with resins, catalysts and solvents. To avoid discomfort all workers should wear gloves and goggles at all time when there is a possibility of spillage or any other contact with these products. The use of protective creams is encouraged as added protection. Over sensitive personnel showing any sign of discomfort should be removed from the work area.

Resin spillage / drippings on the skin can be removed with soap and water. In case of contact with the eye, wash thoroughly for 15 minutes with clean water and get medical help. Medical assistance is required in case of accidental ingestion. Do not induce vomiting.

ADDITIONAL INFORMATION

Oro produces and sells a large variety of products designed to protect steel or concrete substrates against corrosion. Our product line includes coatings and linings, special paints, and products used in surface treatment.

We also carry a complete line of auxiliary products like grouts, anchoring systems, carbon fibers and a complete system solution to the problem of the structural rehabilitation of steel or concrete structures.

Please call us for further information about our products, tutorial videos and technical brochures.



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