

ShaliPoxy® 400 FG

2K Food Grade Epoxy Coating For Single Feed Airless Spray Gun



STP Limited

Description

ShaliPoxy® 400 FG is fast setting, spray applied, solvent free, food grade, two component epoxy coating for internal / external lining of steel / concrete surface of pipes, vessels and other equipment used for potable water. **ShaliPoxy® 400 FG** is **spray** applied by single feed airless spray gun.



ShaliPoxy® 400 FG may be designed to meet specific physical and / or technical characteristics parameters required by the customer. The undernoted physical and / or technical parameters are of standard **ShaliPoxy® 400 FG** produced by the company.

It conforms to BS:6920:2014, IS 16676:2017 (Clauses 4.3 & 9.1) and AWWA C-210:2003.

Characteristics - Physical

| Appearance of Resin | Viscous coloured Liquid | Appearance of Hardener | Viscous Brown Liquid |
|--|-------------------------|---|----------------------|
| Pot Life @ 27°C, 55% RH, 100 gm, minute | 60 ± 10 | Theoretical Coverage *, m ² / L, 200 Micron DFT/Coat | 4.2 |
| Drying time, @ 27°C, 55% RH <ul style="list-style-type: none">• Touch dry, hrs.• Hard dry, hrs.• Full cure, days | 3 | Volume Solids, % | 82 ± 5 |
| | 6 - 8 | Mixing Ratio, by volume | 3:1 |
| | 7 | Application Temp, °C with RH < 75% | 10 - 50 |

* Depending upon surface condition

Characteristics - Technical

| | | |
|--|---------------|--------------------------------------|
| Tensile strength, MPa | ASTM D 638 | 8 ± 2 |
| Abrasion Resistance, 1000 cycle | ASTM D 4060 | < 100 mg |
| Adhesion pull-off, MPa <ul style="list-style-type: none">• On concrete• On Steel | ASTM D 4541 | > 3 > 10 |
| Elongation, % | ASTM D 638 | 3 ± 1 |
| Water vapor transmission, 24 hrs., gm / m ² | ASTM E 96 | 0.10 |
| Hardness, Shore D | ASTM D 2240 | 70 ± 5 |
| Immersion test, 30 days <ul style="list-style-type: none">• DIW• 1% H₂SO₄• 1% NaOH | AWWA C 210 | No blistering / peeling / disbonding |
| Long term contact with potable water for human consumption | NSF / ANSI 61 | No effect |
| Scratch Resistance, 1.5 kg load | IS:101 | No failure |
| Compressive Strength (MPa) | ASTM C 109 | 50 ± 10 |
| Salt spray test, 5000 hrs. | ASTM B 117 | Passes |
| Dielectric Strength, V / mil | ASTM D 149 | 250 |
| Cathodic Disbondment, mm | ASTM G 8 | 6.5 |

Application

- Excellent coating for internal / external lining of pipelines where abrasion / chemical resistance is of major concern.
- Excellent coating for internal / external linings of potable water pipelines.
- Internal coating for concrete / steel potable water storage.
- Sea water intake tunnels.

Advantages

- Solvent free, fast setting, high build-up epoxy.
- Excellent film-built capabilities exceeding 200 microns in single coat, which can be extended with multiple passes.
- Excellent food grade properties.
- Excellent chemical / abrasion resistance properties.
- Good temperature resistance properties.
- Very low permeability.

Application Methodology

➤ Surface Preparation

- Remove all loose gravel, dirt, oil, grease or other loose foreign particles by sand blasting / iron brush / compressed air.
- Prepare surface by mechanical grinding, shot blasting conforming to SA 2½.
- In case of concrete, ensure the concrete is at least 28 days old and remove any loose foreign particles by compressed air.

➤ Material Preparation

- Stir drums of each component thoroughly for uniformity. For best result, use a variable speed drill mixer with a spiral type blade at the bottom of stirrer rod. The speed may be 400 - 600 rpm.

➤ Application of Material

- Prime the surface with **ShaliPrime® 2E** in case of concrete surface.
- Apply **ShaliPoxy® 400 FG** by single feed airless spray gun to the required thickness on the prepared substrate to achieve 200 to 300 micron / coat.
- The tip pressure typically should be 2500 - 4000 psi (the tip pressure should be adjusted to achieve good atomization of the spray).
- Tip size typically should be 27 - 35 Thou orifice.

Cleaning & Maintenance

Clean all tools immediately after use with STP cleaner.

Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapour.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

Packing

Available in 20 L drum consisting of Component A - 15 L and Component B - 5 L.

Storage

Store in a cool dry place, under shade, away from heat.

Shelf Life

12 months in original, unopened, sealed condition.



STP Limited
Enhancing Structures' Life

Product Range

- Waterproofing and Insulation ■ Road Surfacing
- Sealants and Additives ■ Pipeline Coating
- Protective / Anti-Corrosive Coating ■ Epoxy Flooring
- Grouts / Admixtures ■ RestoFix- Repair / Rehabilitation
- Other Construction Chemicals



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