

# EPOSHIELD SF100

## High Build Protective Epoxy Coating

### Description:

EPOSHIELD SF100 is a high build solvent free epoxy coating, introduced in dual pack system. It is formulated to provide high mechanical and chemical protection for industrial units and for internal lining of reinforced concrete and metallic pipes, manholes and waste and sewage tanks.

EPOSHIELD SF100 adheres perfectly to a variety of supports like: concrete, metal, wood, stoneware, etc.

### Applications:

EPOSHIELD SF100 used as a high build coating at:

- Sewerage systems.
- Water pipes concrete and metallic.
- Manholes.

### Advantages:

- Solvent free coating 100% solid content.
- Excellent mechanical and abrasion resistant.
- Coal tar free, non-toxic.
- Stable color.
- Durable and low maintenance cost.
- Excellent resistance to a range of chemicals.
- Excellent adhesion to substrate.
- Ease of application.

### Instructions for Use:

#### Surface Preparation:

All surfaces should be sound, clean, dry and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease. In case of application on concrete ensure that concrete is fully cured. Prepare concrete surface utilizing mechanical preparation method: grinding, captive blasting and sand blasting. If the substrate is restricted to access, utilize preparation by handy mechanical tools.

Perform repairs to cracks, levelling of uneven areas; fill voids by means of epoxy based repair products, consults MATEX Technical Department for further advice.

For applications on metal surfaces, surface should be thoroughly cleaned by Sand blasting or mechanical wire brush to remove rust, corrosion or any other contamination. After cleaning, epoxy primer ARMOPRIME EP100 must be applied directly to metallic surfaces to prevent further oxidization of surface.

### Mixing:

Mix the contents of both components separately with a low speed mixer for two minutes to homogenize the contents of the containers. Then slowly add the contents of part B (Hardener) to Part A container and Mix thoroughly the materials with low speed mixer (200-300 RPM) for an interval of 3-4 minutes confirming a homogenous, color consistent, lump free mixture is reached.

Note that the mixing process is exothermic (heat generating), if excess heat is noticed, avoid excessive mixing or control the speed of mixing machine.

### Application:

After mixing, allow the product to rest for 3-5 minutes to release entrapped air, EPOSHIELD SF100 can be applied by brush, roller or spray machine. Apply the first coat with minimum thickness of 100 microns WFT (wet film thickness). Applied thickness can reach up to 250 microns WFT per coat.

Apply subsequent coats of EPOSHIELD SF100 within a time frame of 24 hours. The Recommended total thickness above 500 micron for full system is required to achieve the desired properties. Allow 7 days curing before usage to ensure proper curing of the materials.

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## Standards:

EPOSHIELD SF100 conforms to:

- ASTM D2240, ASTM C501, ASTM D412, ASTM D624

## TECHNICAL PROPERTIES

Color	:	Dark grey, grey (other colors upon request)
Density	:	1.40 Kg. / Lt.
Tensile strength	:	35.0 N / mm <sup>2</sup>
Compressive Strength	:	72.0 N / mm <sup>2</sup>
Flexural Strength	:	36.0 N / mm <sup>2</sup>
Bond strength	:	2.0 N / mm <sup>2</sup>
Viscosity at 25°C	:	1500 MPa.S
Pot-life time at 25°C	:	60 minutes
Heat resistance	:	-30°C to +90°C

## CHEMICAL RESISTANCE

Material	Concentration	Resistance
Lactic Acid	10%	Excellent
Citric Acid	10%	Excellent
Hydrochloric Acid	25%	Excellent
Sodium Hydroxide	40%	Excellent
Acetic Acid	10%	Excellent
Butanol	-	Excellent
Crude Oil	-	Excellent
Nitric Acid	20%	Excellent
Sulphuric Acid	40%	Excellent
Mineral Oil	10%	Excellent
Ammonia	10%	Excellent
Sea Water/Jet Fuel		Excellent

## Packaging:

EPOSHIELD SF100 is available in 4 and 15 liter set of two parts metallic containers.

## Storage:

Store in original packing in dry conditions away from direct sunlight and in a temperature controlled warehouse.

## Coverage:

EPOSHIELD SF100 achieves coverage of 5.0 square meters per liter @ 200 micron WFT (Wet Film Thickness) per coat.

## Shelf Life:

EPOSHIELD SF100 can be utilized within 12 months of production date if stored in proper conditions in unopened original packing.

## Cleaning:

All tools and equipment should be cleaned immediately after use with MATEX SOLVENT.

## Health and Safety:

- Use goggles and gloves during application. Do not breathe vapor of products. Use only in well ventilated areas.
- Avoid contact with eyes or skin.
- Avoid direct contact with flames and fire.

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This technical data sheet is not considered as local building codes. It shall be used as general reference for the product, based on our current knowledge and experience. However the company do not accept any liability arising from the use of its products as it has no direct control on how and where the product is applied.

