

Sam zinc rich Epoxy 3- EC

Product description.

A zinc rich, Two-component, Polyamide-cured epoxy Primer.

Characteristics

- Complies with requirements of SSPC-Paint 20, Level 3.
- Complies with requirements of ISO 12944 in corrosivity category C5.
- Excellent cathodic protection properties for carbon steel.
- Recommended for Industrial and marine Environment.
- Excellent workability and Quick-drying properties.
- Can be used as a single system.
- Over coated with SAMCO mid Epoxy coats to build the recommended paint system.

Physical properties.

Colour Gray

Texture Flat

Mixing and application Information

Number of components	Two
Mixing ratio	By Volume, base to hardener: 80 / 20
Specific gravity	Approx. 2.20 g/ml
Volume solids	60±2% Tested acc. ASTM D 2369
VOC	Approx. 400 g/liter
Flashpoint	>25°C
spray	Airless spray Recommended Pressure at nozzle: 180 - 250 bar. Nozzle size: 0.41 - 0.58 mm. Spray angle: 40 - 80 degrees. Thinning Ratio: 0 - 5%.
Brush	Convention Air spray- not recommended. Suitable for stripe coat and touch up. Thinning Ratio: 0 - 10%
Roller	Suitable for stripe coat and touch up. Thinning Ratio: 0 - 10%.
Thinner/Cleaner	SAM Thinner No. 1 Thinning should only be added after the two components have been thoroughly mixed.
Pot life	120 min at 25 C°

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Recommended film thickness range

Dry film thickness per coat (µm)	50 – 100 µm	ASTM D1186 ASTM D1212
Wet film thickness per coat (µm)	83 – 166.6 µm	
Theoretical spreading rate (m ² /L)	12 – 6 m ² /L	

Surface Preparation

Blast cleaning

- Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion,
- Surface shall be treated in accordance with ISO, ASTM or SSPC standards.
- The abrasives shall be free from oil, grease, moisture, chloride contamination, etc. and comply with ISO 8504-2 and SSPC AB1.
- The surface roughness shall be complied with ISO 8503 and ASTM D4417 with roughness between 40µm: 70µm.

	Recommended
Carbon steel	ISO 8501-1 Sa 2½, SSPC-SP10.

Power tool Cleaning

- The Surfaces must be clean, dry and free from oil and other contamination.
- For Repair and Touch up only.
- Surfaces shall be treated in accordance with ISO 8504-3.
- Power-tool cleaning to recommended degree St 3, SSPC-SP3.
- Feathering the coated surface "**decreasing the edge thickness of a coat film**".

Drying and recoating information

Substrate temperature	10°C	23°C	30°C		
Touch dry	30 min	10 min	5 min	ASTM D 1640	
Dry to handle	5 Hours	3 Hours	2 Hours		
Full cure	10 Days	7 Days	5 Days		
Dry to recoat	Min.	12 Hours	8 Hours		6 Hours
	Max	Indefinite	Indefinite		Indefinite

The drying and curing periods are established by subjecting the product to controlled temperatures and a relative humidity level that does not exceed 85%, and at average DFT range for the product.

Application conditions

- Avoid the formation of moisture on the surface, it is recommended that the temperature of the substrate remains at least 3°C higher than the dew point of the surrounding air, during painting process and until hard dry of the paint. It is important to take measurements of the temperature and relative humidity in the area surrounding the substrate according to ISO 8502-4.
- It is recommended to not exceed the surface temperature of approximately 45°C, as this can lead to the formation of dry-spray, pinholes, and sagging.
- For optimal results, it is important to mix the product thoroughly, making sure to combine the base and hardener in the recommended ratio.
- Thinning should only be added after the two components have been thoroughly mixed.
- To achieve the best results, it is advised to follow the product's TDS recommendations for thinning. Over-thinning the product can cause sagging and may also result in a weaker paint film.
- When working in small, cramped, confined spaces, it is important to ensure sufficient ventilation during both application and drying time.
- It is important to monitor the temperature of the paint, as it can impact its viscosity. To achieve the desired film thickness, it may be necessary to control thinning in order to reach the appropriate viscosity, for additional information, please get in touch with your Local SAMCO office.

Safety Precautions

- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes.
- Avoid inhalation of spray mist, it is important to take appropriate precautions. Skin contact should also be avoided, and any spills should be promptly cleaned up using soap, water, and a suitable cleanser. If the product comes into contact with the eyes, they should be thoroughly flushed with water and medical attention should be sought immediately.
- To ensure safe handling and use, please follow the guidelines below:
 - Wear appropriate personal protective equipment, such as gloves, eye protection, and respiratory protection, when handling or using this product.
 - Avoid direct skin contact and inhalation of dust, mist, or vapor.
 - If skin contact occurs, immediately wash the affected area with soap and water.
 - If the product comes into contact with the eyes, flush them thoroughly with water and seek medical attention immediately.
 - Use this product in a well-ventilated area to minimize the risk of inhalation.
 - Store the product in a cool, dry place, away from sources of heat or ignition.
 - Keep the product out of reach of children and animals.
 - Follow all applicable regulations and guidelines for handling, transportation, and disposal of this product.

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Storage and shelf life

Ensure compliance with national regulations, proper storage guidelines must be followed for the product. The cans should be stored in a well-ventilated area that is dry, cool, and kept away from any heat or ignition sources. It is important to ensure that the cans are tightly closed at all times to maintain safety.

Disclaimer

All information in this document has been prepared to the best of SAMCO's knowledge, based on laboratory testing and practical experience to ensure good workmanship. However, the responsibility for executing the work stays with the applicator/ contractor/sub-contractor. SAMCO products are used under conditions beyond SAMCO's control. Users should always consult SAMCO for specific guidance on the general suitability of this product for their needs and specific application practices. SAMCO reserves the right to change the given data without further notice.