

Barrier 80

Product description

This is a two component polyamide cured zinc rich epoxy coating. It is a high solids, high zinc dust containing product. It conforms to the compositional requirements of SSPC paint 20, level 2 and ISO 12944-4. It provides very good corrosion protection as part of a complete coating system. To be used as primer in atmospheric environments. Suitable for carbon steel, repair of inorganic zinc silicate coating and damaged galvanised steel substrates. This product complies with ASTM D520 type II zinc dust.

Typical use

Protective:

Suitable for structural steel and piping to be exposed to corrosive environments up to very high. Recommended for offshore environments, refineries, power plants, bridges, buildings, mining equipment and general structural steel. Specially designed as a primer in coating systems where extended durability is required.

Approvals and certificates

Tested in accordance with ISO 12944-6, high expected durability in corrosivity category C5-I

Additional certificates and approvals may be available on request.

Colours

grey

Product data

| Property | Test/Standard | Description |
|--------------------------------|-------------------|-------------|
| Solids by volume | ISO 3233 | 61 ± 2 % |
| Gloss level (60 °) | ISO 2813 | matt (0-35) |
| Flash point | ISO 3679 Method 1 | 27 °C |
| Specific gravity | calculated | 2,54 kg/l |
| VOC-Solvent Emission Directive | SED (1999/13/EC) | 165 g/kg |

The provided data is typical for factory produced products, subject to slight variation depending on colour.

All data is valid for mixed paint.

Gloss level: According to Jotun Performance Coatings' definition.

Recommended film thickness per coat

| Film thickness and spreading rate | Dry film thickness (µm) | Wet film thickness (µm) | Theoretical spreading rate (m ² /l) |
|-----------------------------------|----------------------------|----------------------------|---------------------------------------------------|
| Minimum | 40 | 65 | 15,3 |
| Maximum | 90 | 150 | 6,8 |
| Typical | 50 | 80 | 12,2 |

Surface preparation

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Surface preparation summary table

| Substrate | Surface preparation | |
|-------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| | Minimum | Recommended |
| Carbon steel | St 3 (ISO 8501-1) | Sa 2½ (ISO 8501-1) |
| Shop primed steel | Clean, dry and undamaged approved shop primer (ISO 12944-4 6.1) | Abrasive swept or alternatively blasted to Sa 2 (ISO 8501-1) of at least 70 % of the surface. |

Application

Application methods

The product can be applied by

- Spray: Use airless spray.
- Brush: Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

| | |
|-------------------|-----------|
| Barrier 80 Comp A | 3 part(s) |
| Barrier 80 Comp B | 1 part(s) |

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17

Guiding data for airless spray

| | |
|-------------------------------|------------------|
| Nozzle tip (inch/1000): | 15-21 |
| Pressure at nozzle (minimum): | 150 bar/2100 psi |

Drying and Curing time

| Substrate temperature | 5 °C | 10 °C | 23 °C | 40 °C |
|---------------------------|--------|--------|--------|--------|
| Surface (touch) dry | 50 min | 20 min | 10 min | 4 min |
| Walk-on-dry | 3 h | 2 h | 1.5 h | 40 min |
| Dry to over coat, minimum | 3 h | 2 h | 1.5 h | 40 min |
| Dried/cured for service | 10 d | 7 d | 5 d | 2 d |

Drying and curing times are determined under controlled temperatures and relative humidity below 85%, and at the typical DFT for the product.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness. Dry sand sprinkled on the surface can be brushed off without sticking to or causing damage to the surface.

Walk-on-dry: Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other physical damage.

Dry to over coat, minimum: The shortest time allowed before the next coat can be applied.

Dried/cured for service: Minimum time before the coating can be permanently exposed to the intended environment/medium.

Induction time and Pot life

| Paint temperature | 23 °C |
|-------------------|--------|
| Induction time | 30 min |
| Pot life | 12 h |

Heat resistance

| | Temperature | |
|------------------|-------------|--------|
| | Continuous | Peak |
| Dry, atmospheric | 120 °C | 140 °C |

Peak temperature duration max. 1 hour.

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures.

Product compatibility

Depending on the actual exposure of the coating system, various primers and topcoats can be used in combination with this product. Some examples are shown below. Contact Jotun for specific system recommendation.

Previous coat: inorganic zinc shop primer
Subsequent coat: epoxy, epoxy mastic, polyurethane

Packaging (typical)

| | Volume (litres) | Size of containers (litres) |
|-------------------|----------------------------|----------------------------------------|
| Barrier 80 Comp A | 3 / 6.75 | 5 / 10 |
| Barrier 80 Comp B | 1 / 2.25 | 1 / 3 |

The volume stated is for factory made colours. Note that local variants in pack size and filled volumes can vary due to local regulations.

Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, cool, well ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Shelf life at 23 °C

| | |
|-------------------|-------------|
| Barrier 80 Comp A | 24 month(s) |
| Barrier 80 Comp B | 24 month(s) |

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Caution

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jotun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jotun representative for approval before commencing the work.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

Colour variation

Products primarily meant for use as primers and antifoulings may have slight color variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering.

Disclaimer

Technical Data Sheet

Barrier 80



The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.
