Technical Data Sheet

Barrier 80 S

Product description

This is a two component ceramically reinforced polyamide cured zinc rich epoxy coating. It is a fast drying, high solids, high zinc dust containing product. It conforms to the compositional requirements of SSPC paint 20, level 2 and ISO 12944-5. 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 galvanized steel substrates. This product complies with ASTM D520 type II zinc dust.

Typical use

Protective:
Suitable for structural steel and piping exposed in corrosivity categories up to CX (ISO 12944-2). Recommended for offshore environments, refineries, power plants, bridges, buildings, mining equipment and general structural steel. Specially designed as a primer for coating systems where extended durability is required.

Approvals and certificates

Tested in accordance with ISO 12944-6, high expected durability in corrosivity category C5H and C5VH

Pre-qualified in accordance with NORSOK M-501 in selected systems

Additional certificates and approvals may be available on request.

Colors

grey

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	67 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	77 °F (25 °C)
	Comp A	Closed cup: 77°F (25°C)
Density	calculated	2.3 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	2.61 lbs/gal

EC Comp B is available upon request, please contact your local sales representative.

This technical data sheet supersedes those previously issued.
The Technical Data Sheet (TDS) is recommended to be read in conjunction with the Safety Data Sheet (SDS) and the Application Guide (AG) for this product. For your nearest local Jotun office, please visit our website at www.jotun.com

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

Gloss description: According to Jotun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	2.4 mils (60 µm)	4 mils (100 µm)
Wet film thickness	4 mils (90 µm)	6 mils (150 µm)
Theoretical spreading rate	450 ft²/gal (11.1 m²/l)	270 ft²/gal (6.7 m²/l)

This product can be applied up to 50 % higher than maximum specified film thickness without loss of technical properties.

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	St 3 (ISO 8501-1) or SSPC SP-3	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10
Shop primed steel	Clean, dry and undamaged approved shop primer (ISO 12944-4 5.4)	Sweep blasted or alternatively blasted to Sa 2 (ISO 8501-1) or SP 6 / NACE No. 3 (SSPC-VIS 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.

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Product mixing ratio (by volume)

Barrier 80 S Comp A	6 part(s)
Barrier 80 S Comp B / EC Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17 / Jotun Thinner No. 69

Jotun Thinner No. 17: for fast evaporation
Jotun Thinner No. 69: for slow evaporation

It is recommended to use Jotun Thinner No. 69 when the ari temperature is >30ºC.
If the relative humidity is <30%, it is recommended to use Jotun Thinner No. 69 when the air temperature >25ºC.

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	23 °F	32 °F	41 °F	50 °F	73 °F	104 °F
Surface (touch) dry	1 h	45 min	30 min	20 min	8 min	4 min
Walk-on-dry	16 h	8 h	4 h	3 h	2 h	40 min
Dried to over coat, minimum	16 h	8 h	4 h	3 h	2 h	40 min
Dried/cured for service	21 d	14 d	10 d	7 d	5 d	3 d

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

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

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

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 recommended shortest time 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.

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Induction time and Pot life

Paint temperature	73 °F
Pot life	6 h

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	248 °F	284 °F

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

Packaging (typical)

	Volume (liters)	Size of containers (liters)
Barrier 80 S Comp A	7.5	10
Barrier 80 S Comp B / EC Comp B	1.25	3

The volume stated is for factory made colors. 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, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Shelf life at 73°F (23 °C)

Barrier 80 S Comp A	24 month(s)
Barrier 80 S Comp B / EC Comp B	24 month(s)

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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.

Environmental Documentation

This product can contribute to Green Building Standard credits. Please refer to Jotun.com for more information or contact your local Jotun representative.

Environmental Product Declaration (EPD) is available at www.epd-norge.no

Caution

This product is for professional use only. The applicator and operator 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 should 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 in 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 sought medical attention immediately.

Color variation

When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products and epoxy-based products used as a finish coat may chalk when exposed to sunlight and weathering.

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint. Contact your local Jotun office for further information.

Disclaimer

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 data given 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.