

Technical Data

Barrier 90



Product description

Barrier 90 is a two-pack zinc rich epoxy primer with a high content of zinc. Complies with the compositional requirements for SSPC Paint 20 level 1, BS 4652 and BS 5493, and AS/NZS 3750.9.1994. This product can also be made to order with ASTM D520 Type II zinc dust.

Recommended use

As a primer on blast cleaned steel. Barrier 90 is used in combination with most advanced coating systems to further improve protection against corrosion.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (μm)	25	90	40
Film thickness, wet (μm)	45	170	75
Theoretical spreading rate (m^2/l)	21,2	5,9	13,3

Comments

When the maximum Dry Film Thickness is applied the Drying time will increase.

Physical properties

Colour	Grey
Solids (vol %)*	53 \pm 2
Flash point	27°C \pm 2 (Setaflash)
Gloss	Flat
Water resistance	Excellent
Abrasion resistance	Very good
Solvent resistance	Very good
Flexibility	Good

*Measured according to ISO 3233:1998 (E)

Surface preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Bare steel

Cleanliness: Blast cleaning to min. Sa 2 ½ (ISO 8501-1:2007) or for maintenance UHPWJ to WJ2 (NACE No.5/SSPC-SP 12). Roughness: using abrasives suitable to achieve minimum grade Fine (ISO 8503-2).

Other surfaces

The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be minimum 5°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is required in confined areas to ensure correct drying.

Application methods

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

Application data

Mixing ratio (volume)	6:1
Mixing	6 part Comp. A (base) to be mixed thoroughly with 1 part Barrier 90, Comp. B (curing agent) ½ hour prior to use.
Pot life (23°C)	24 hours. (Reduced at higher temp.).
Thinner/Cleaner	Jotun Thinner No. 17
Guiding data airless spray	
Pressure at nozzle	15 MPa min (150 kp/cm², 2100 psi.).
Nozzle tip	0.38 - 0.53 mm (0.015 - 0.021").
Spray angle	40 - 80°
Filter	Check to ensure that filters are clean.

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

- * Good ventilation (Outdoor exposure or free circulation of air)
- * Typical film thickness
- * One coat on top of inert substrate

Substrate temperature	5°C	10°C	23°C	40°C
Surface dry	50 min	20 min	10 min	4 min
Through dry	3 h	2 h	1.5 h	40 min
Cured	10 d	7 d	5 d	2 d
Dry to recoat, minimum ¹	3 h	2 h	1.5 h	40 min
Dry to recoat, maximum ^{1,2}				

1. Recommended data given for recoating with coatings normally specified on top of zinc epoxy coatings.
2. The surface should be dry and free from any contamination prior to application of the subsequent coat.

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Barrier 90 **1 x 25 - 75 µm** **(Dry Film Thickness)**

Subsequent coating(s) by choice e.g.: epoxy, acrylic or vinyl.

Other systems may be specified, depending on area of use

Storage

The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed.

Handling

Handle with care. Stir well before use. Continuous stirring during application will prevent the heavy zinc pigment from settling.

Packing size

8.75 litre unit: 7.5 litres comp. A (base) in a 10 litre container and 1.25 litres Barrier 90, Comp. B (curing agent) in a 3 litre container.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale 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.

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.

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