

Technical Data

Penguard Midcoat MIO



Product description

Penguard Midcoat MIO is a high solids, low VOC, high build, micaceous iron oxide pigmented two-pack epoxy coating.

Recommended use

Exclusively as a high build MIO epoxy intermediate coat as a part of a multi layer coating system for protection of steel structures. The intermediate coat is used to improve the barrier protection for anti corrosive coatings systems in a wide range of environments.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (μm)	100	250	150
Film thickness, wet (μm)	125	300	185
Theoretical spreading rate (m^2/l)	8,2	3,3	5,5

Physical properties

Colour	Red, Grey
Solids (vol %)*	82 \pm 2
Flash point	25°C \pm 2 (Setaflash)
VOC	180 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Flat
Gloss retention	Fair
Water resistance	Very good
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.

Coated surfaces

Should only be applied over clean, dry and undamaged compatible anti-corrosive zinc primer. Zinc silicate primed surfaces must be fully cured and free of zinc salts and contaminants. Please contact your local Jotun office for more information.

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 15°C and at least 3°C above the dew point of the air. The temperature and the relative humidity should be measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying. The coating should not be exposed to oil, chemicals or mechanical stress until fully cured.

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) 4 parts Comp. A (base) to be mixed thoroughly with 1 part Comp. B (curing agent)

Mixing 5-10 minutes prior to use.

Pot life (23°C) 2 hours. (Reduced at higher temp.)

Thinner/Cleaner Jotun Thinner No. 17 (up to 5% for lower film thickness application.)

Guiding data airless spray

Pressure at nozzle 15 MPa (150 kp/cm², 2100 psi.)

Nozzle tip 0.53 - 0.69 mm (0.021-0.027")

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	15°C	23°C	40°C
Surface dry	6 h	4 h	2 h
Through dry	9 h	6 h	3 h
Cured	10 d	7 d	5 d
Dry to recoat, minimum	9 h	6 h	3 h
Dry to recoat, maximum ¹			

1. Provided the surface is free from chalking and other contamination prior to application, there is normally no overcoating time limit. Best intercoat adhesion occurs, however, when the subsequent coat is applied before preceding coat has cured. If the coating has been exposed to direct sunlight for some time, special attention must be paid to surface cleaning and mattening/removal of the surface layer in order to obtain good adhesion.

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	1 x 60 µm	(Dry Film Thickness)
Penguard Midcoat MIO	1 x 175 µm	(Dry Film Thickness)
Hardtop AS/Hardtop XP	1 x 50 µm	(Dry Film Thickness)

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.

Packing size

16 litres Comp. A (base) in a 20 litre container and 4 litres Comp. B (curing agent) in a 5 litre container and 4 litres Comp. A (base) in a 5 litre container and 1 litres Comp. B (curing agent) in a 1 litre container.

Packing may vary from country to country according to local requirements.

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 can be used under conditions beyond our control, we can only guarantee the quality of the product itself. We also reserve the right to change the given data without notice. Minor product variations may be implemented in order to comply with local requirements.

If there is any inconsistency in the text the English (UK) version will prevail.

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