

Technical Data

Marathon 500



Product description

This is a two component, surface tolerant, abrasion resistant, high solids epoxy based coating which will continue to cure when immersed in water. Can be applied in high film thickness.

Recommended use

Can be used alone or in combination with a topcoat. Especially well suited for harsh environments, splash zones and areas exposed to tidal water movements. Can be immersed prior to fully cured.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (μm)	250	500	300
Film thickness, wet (μm)	295	590	350
Theoretical spreading rate (m^2/l)	3,4	1,7	2,8

Approvals

NORSOK M-501, system 7A (NORNER Report No SL 13363)

Physical properties

Colour	According to Multicolour Tinting System (MCI)
Solids (vol %)*	85 ± 2
Flash point	43°C ± 2 (Setaflash)
VOC	1,75 lbs/gal (210 gms/ltr) USA-EPA Method 24 130 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Glossy
Gloss retention	Good
Water resistance	Excellent
Abrasion resistance	Excellent
Solvent resistance	Good
Chemical resistance	Good
Flexibility	Good
Compatibility with cathodic protection	Excellent

*Measured according to ISO 3233:1998 (E)

Exposure to water or humidity soon after application may affect the coating surface and give a whitish appearance, especially on dark and strong colours. This will however not affect the protective properties.

Hong Kong rules:

Category of paints - Other vessel coatings; VOC 210 gms/ltr HK EPD method (Ready to use); Exempt compound - N/A; Specific gravity: 1.55 (A+B); Both VOC and Specific gravity values provided are typical values, subject to changes when different colour involved.

Surface preparation

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

Bare steel

Cleanliness: Blast cleaning to min. Sa 2½ (ISO 8501-1:2007) or for previously coated surfaces UHPWJ to WJ2 (NACE No.5/SSPC-SP 12). Roughness: using abrasives suitable to achieve grade Fine to Medium G (30-85 µm, Ry5) (ISO 8503-2). Power tool cleaning to min. St 2 (ISO 8501-1:2007) may be acceptable, subject to exposure.

Shopprimed steel

Clean, dry and undamaged approved shopprimer.

Coated surfaces

Clean, dry and undamaged compatible primer. 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

All surfaces should be clean and free from contamination. The temperature of the substrate should be minimum 0°C and preferably minimum 3°C above the dew point of the air. The product may however be applied on slightly damp surfaces under some circumstances, please contact TSS for details. The surface should be assessed and treated in accordance with ISO 8504. 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. With forced ventilation, avoid heated air at first as this may cause surface drying and solvent entrapment. 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.
Roller	May be used for small areas but not recommended for first primer coat, however when using roller application care must be taken to apply sufficient material in order to achieve the specified dry film thickness.

Application data

Mixing ratio (volume)	5:1
Mixing	5 parts Comp. A (base) to be mixed thoroughly with 1 part Marathon 500, Comp. B (curing agent)
Induction time	10 minutes.
Pot life (23°C)	1.5 hour (reduced at higher temperatures)
Thinner/Cleaner	Jotun Thinner No. 17
Guiding data airless spray	
Pressure at nozzle	17 MPa (170 kp/cm ² , 2500 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	0°C	10°C	15°C	23°C	40°C
Surface dry	24 h	14 h	10 h	4 h	1,5 h
Through dry ¹	48 h	24 h	18 h	8 h	3 h
Cured	10 d	7 d	6 d	5 d	3 d
Dry to recoat, minimum ²	48 h	24 h	18 h	8 h	3 h
Dry to recoat, maximum ³					

Substrate temperature	5°C
Surface dry	18 h
Through dry	34 h
Cured	8 d
Dry to recoat, minimum	34 h
Dry to recoat, maximum	

1. The earliest time for exposure to mechanical strain, i.e. to walk on the coated surface.
2. The earliest time for recoating with the same generic type of paint. Note that the paint film is not hard at this time and cannot withstand mechanical strain.
3. 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

Marathon 500 **2 x 250 µm** **(Dry Film Thickness)**

or

Marathon 500 **1 x 500 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

18 litre unit: 15 litres Comp. A (base) in a 20 litre container and 3 litres Marathon 500, Comp. B (curing agent) in a 5 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 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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