

## Marathon 1000 GF

### Product description

This is a two component polyamine cured epoxy coating. It is a high build, solvent free, glass flake reinforced product. It has very good impact and abrasion resistance. Suitable for environments with very high corrosivity, such as areas in the splash or tidal zone. Can be used as primer, mid coat, finish coat or as single coat system in atmospheric and immersed environments. Suitable for properly prepared carbon steel substrates.

### Typical use

Protective:

Suitable for structural steel and piping to be exposed to corrosive environments up to very high and immersed. Recommended for offshore environments, refineries, power plants, bridges, buildings, mining equipment and general structural steel. Specially suited in areas where high mechanical strength is required, such as splash or tidal zones.

Can be used as a non-slip deck system in combination with appropriate Anti-Skid aggregate and finish coat. Compatible with cathodic protection systems.

### Approvals and certificates

NORSOK Standard M-501, Edition 6, Coating system no. 1 - Carbon steel with maximum operating temperature <248 °F (120 °C)

NORSOK Standard M-501, Edition 6, Coating system no. 4 - Walkways, escape routes and lay down areas

NORSOK Standard M-501, Edition 6, Coating system no. 7A - Carbon and stainless steel in the splash zone

Additional certificates and approvals may be available on request.

### Colors

selected range of colors

## Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	98 ± 2 %
Flash point	ISO 3679 Method 1	212 °F (100 °C)
Density	calculated	1.4 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong)	0.48 lbs/gal

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

## Film thickness per coat

### Typical recommended specification range

Dry film thickness	20 mils (500 µm)	- 39 mils (1000 µm)
Wet film thickness	20 mils (510 µm)	- 40 mils (1020 µm)
Theoretical spreading rate	80 ft <sup>2</sup> /gal (2 m <sup>2</sup> /l)	- 40 ft <sup>2</sup> /gal (1 m <sup>2</sup> /l)

When used on horizontal areas as part of a deck coating system the maximum DFT is 80 mils (2000 µm).

## 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 2 (ISO 8501-1) or SSPC SP-2	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10
Shop primed steel	Clean, dry and undamaged approved shop primer	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.
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating

## Application

### Application methods

The product can be applied by

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

### Product mixing ratio (by volume)

Marathon 1000 GF Comp A	3 part(s)
Marathon 1000 GF Comp B	1 part(s)

### Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17  
Thinning max: 5 %

Thinning is not normally required. Consult the local representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.

**Note:** Korean VOC regulation "Korea Clean Air Conservation Act" and its corresponding thinning limit will prevail over recommended thinning volumes.

### Guiding data for airless spray

Nozzle tip (inch/1000): 21-31  
Pressure at nozzle (minimum): 210 bar/3000 psi

Heavy duty nozzles to be used.

Pump capacity: 2.2 l/min - 4.8 l/min

## Drying and Curing time

Temperatures:

-10°C = 14°F / -5°C = 23°F / 0°C = 32°F / 5°C = 41°F / 10°C = 50°F / 15°C = 59°F / 23°C = 73°F / 35°C = 95°F / 40°C = 104°F / 100°C = 212°F

Substrate temperature	5 °C	10 °C	15 °C	23 °C	40 °C
Surface (touch) dry	21 h	14 h	10 h	7 h	3 h
Walk-on-dry	32 h	19 h	16 h	9 h	4 h
Dried to over coat, minimum	32 h	19 h	16 h	9 h	4 h
Dried/cured for service	14 d	10 d	10 d	7 d	3 d
Dried/cured for immersion	14 d	10 d	10 d	7 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.

Dried/cured for immersion: Minimum time before the coating can be permanently immersed in sea water.

## Induction time and Pot life

Temperatures: 15°C = 59°F / 23°C = 73°F

**Paint temperature** **23 °C**

Pot life 45 min

Reduced at higher temperatures, and with increased mixing volumes.

## Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	120 °C	-
Immersed, sea water	50 °C	60 °C

Peak temperature duration max. 1 hour.

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

Note that the coating will be resistant to various immersion temperatures depending on the specific chemical and whether immersion is constant or intermittent. Heat resistance is influenced by the total coating system. If used as part of a system, ensure all coatings in the system have similar heat resistance.

## 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: epoxy, zinc rich epoxy, inorganic zinc silicate  
Subsequent coat: polyurethane, polysiloxane, epoxy, vinyl epoxy

## Packaging (typical)

	Volume (liters)	Size of containers (liters)
Marathon 1000 GF Comp A	13.5	20
Marathon 1000 GF Comp B	4.5	5

4.5 l = 1.19 gal  
13.5 l = 3.57 gal

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, 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)**

Marathon 1000 GF Comp A	12 month(s)
Marathon 1000 GF Comp B	12 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.

## **Note**

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.

## **Color variation**

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

Color and gloss retention on topcoats/finish coats may vary depending on type of color, 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 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.