Marathon IQ

Product description

This is a two component polyamine cured epoxy coating. It is a high build, solvent free product. It is highly scratch resistant. Suitable for environments with very high corrosivity. 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

Marine:
Specially suited in areas where high scratch resistance is required. Specially designed for ice going vessels including ice breakers. Suitable as anode shield around ICCP anodes.

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. Compatible with cathodic protection systems.

Approvals and certificates

Recognised abrasion resistant coating ice coating from Lloyds Register
Type approval for ice trade by Russian Maritime Register of shipping

Additional certificates and approvals may be available on request.

Colors

red

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	98 ± 2 %
Gloss level (GU 60 °)	ISO 2813	gloss (70-85)
Flash point	ISO 3679 Method 1	131 °F (55 °C)
Density	calculated	1.5 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong)	0.64 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.
Gloss description: According to Jotun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	10 mils (250 µm)	- 28 mils (700 µm)
Wet film thickness	10 mils (260 µm)	- 28 mils (720 µm)
Theoretical spreading rate	160 ft²/gal (3.9 m²/l)	- 60 ft²/gal (1.4 m²/l)

For use as anode shield: Minimum 2 x 20 mils (500 µm) dft

For ice resistance, film thickness 20 mils (500 µm) applied as one coat is recommended.

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

	Surface preparation	
Substrate	**Minimum**	**Recommended**
Carbon steel	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance is achieved with recommended surface preparation.

Application

Application methods

The product can be applied by

Spray:	Two component heated airless spray. If permitted, thin 10 %, to use normal airless spray. If thinned the abrasion resistance may be reduced. No thinning accepted when used for ice resistance.
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 IQ Comp A	2 part(s)
Marathon IQ / Marathon IQ GF Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17

Thinning max: 10 %

Thinning will prolong the drying and curing times.
For application on under water hull of ice-going vessels no thinning is allowed.

Guiding data for airless spray

Nozzle tip (inch/1000): 21-31

Pressure at nozzle (minimum): 200 bar/2900 psi

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	10 °C	23 °C	40 °C
Surface (touch) dry	6 h	3 h	2 h
Walk-on-dry	20 h	10 h	4 h
Dried to over coat, minimum	20 h	10 h	4 h
Dried/cured for service	14 d	7 d	3 d
Dried/cured for immersion	4 d	2 d	1 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	30 min

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.

Subsequent coat: vinyl epoxy, epoxy, polyurethane

Packaging (typical)

	Volume (liters)	Size of containers (liters)
Marathon IQ Comp A	10	20
Marathon IQ / Marathon IQ GF Comp B	5	5

5 l = 1.32 gal
15 l = 3.96 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 IQ Comp A	48 month(s)
Marathon IQ / Marathon IQ GF Comp B	48 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 may fade and 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., and application quality. 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.