Jotamastic 90

Product description

This is a two component polyamine cured epoxy mastic coating. It is a surface tolerant, abrasion resistant, high solids, high build product. This product is tintable in a wide range of colors in Jotun's Multicolor Industry (MCI) system. Specially designed for areas where optimum surface preparation is not possible or required. Provides long lasting protection in environments with 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, galvanized steel, stainless steel, aluminum, concrete and a range of aged coating surfaces. It can be applied at sub zero surface temperatures.

Typical use

General:
Primarily designed for maintenance and repair.

Marine:
Outside hulls, exterior and interior areas.

Protective:
Recommended for offshore environments, including splash zones, refineries, power plants, bridges, buildings, mining equipment and general structural steel.

Approvals and certificates

Certified in accordance with IMO Res.288(87) – PSPC Crude Oil Tanks **(Valid for Standard Grade only)**
Pre-qualified in accordance with NORSOK M-501 in selected systems
Grain, Newcastle Occupational Health

Certified in accordance with IMO 2010 FTP code – Low Flame Spread

Consult your Jotun representative for details.

Additional certificates and approvals may be available on request.

Other variants available

Jotamastic 90 Aluminium
Jotamastic 90 GF

Refer to separate TDS for each variant.

Colors

black, white and according to Multicolor Industry tinting system (MCI)

This technical data sheet supersedes those previously issued.
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Product data

Property	Test/Standard		Description
STANDARD GRADE			
Solids by volume	ISO 3233		80 ± 2 %
Gloss level (GU 60 °)	ISO 2813		semi gloss (35-70)
Flash point	ISO 3679 Method 1	Mixed	95 °F (35 °C)
	Comp A		Closed cup: 91.4°F (33°C)
	Comp B		Closed cup: 102.2°F (39°C)
Density	calculated		1.4 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	1.95 lbs/gal

WINTER GRADE			
Solids by volume	ISO 3233		80 ± 2 %
Flash point	ISO 3679 Method 1	Mixed	97 °F (36 °C)
	Wintergrade Comp B		Closed cup: 95°F (35°C)
Density	calculated		1.4 kg/l

Region	Regulation	Test Standard	VOC Value
US	CARB(SCM)2020 / SCAQMD rule 1113	Calculated	1.78 lbs/gal

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

Gloss description: According to Jotun Performance Coatings' definition.

Small color variations may occur when changing between the two curing agents. If exposed to weathering without topcoat, the Wintergrade (WG) version will yellow at a faster rate than the same color in Standard grade.

The VOC values refer to grey colour.

Film thickness per coat

Typical recommended specification range

STANDARD GRADE

Dry film thickness	4 mils (100 µm)	12 mils (300 µm)
Wet film thickness	5 mils (125 µm)	15 mils (375 µm)
Theoretical spreading rate	330 ft²/gal (8 m²/l)	110 ft²/gal (2.7 m²/l)

WINTER GRADE

Dry film thickness	4 mils (100 µm)	- 12 mils (300 µm)
Wet film thickness	5 mils (125 µm)	15 mils (375 µm)
Theoretical spreading rate	326 ft²/gal (8 m²/l)	110 ft²/gal (2.7 m²/l)

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Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	St 2 (ISO 8501-1) or SSPC SP-2	Sa 2 (ISO 8501-1) / SP 6 / NACE No. 3 (SSPC-VIS 1)
Stainless steel	The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface.	Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Aluminum	The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to the surface.	Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Galvanized steel	The surface shall be clean, dry and appear with a rough and dull profile.	Sweep blast-cleaning using non-metallic abrasive leaving a clean, rough and even pattern.
Shop primed steel	Clean, dry and undamaged shop primer (ISO 12944-4 5.4)	Sa 2 (ISO 8501-1) / SP 6 / NACE No. 3 (SSPC-VIS 1)
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating
Concrete	Low pressure water washing to a rough, clean, dry and laitance free surface.	Minimum 4 weeks curing. Moisture content maximum 5 %. Prepare the surface by means of enclosed blast shot or diamond grinding and other appropriate means to abrade the surrounding concrete and to remove laitance.

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:	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. Not recommended for first primer coat. Care must be taken to achieve the specified dry film thickness.

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Product mixing ratio (by volume)

STANDARD GRADE

Jotamastic 90 Comp A	3.5 part(s)
Jotamastic 90 Standard Comp B	1 part(s)

WINTER GRADE

Jotamastic 90 Comp A	3.5 part(s)
Jotamastic 90 Wintergrade Comp B	1 part(s)

Independent on substrate temperature the minimum temperature of the mixed base and curing agent is 50 °F (10 °C). Lower temperature may require additional thinner to reach correct application viscosity. Additional thinner gives lower sag resistance and slower curing. If addition of thinner is required, this shall be done after mixing of the two components.

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17

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.

Guiding data for airless spray

Nozzle tip (inch/1000):	19-25
Pressure at nozzle (minimum):	150 bar/2100 psi

Drying and Curing time

Substrate temperature	23 °F	32 °F	41 °F	50 °F	73 °F	104 °F
STANDARD GRADE						
Surface (touch) dry			20 h	12 h	4 h	1.5 h
Walk-on-dry			40 h	20 h	6 h	3 h
Dried to over coat, minimum			30 h	10 h	3 h	1.5 h
Dried/cured for service			28 d	14 d	7 d	2 d
WINTER GRADE						
Surface (touch) dry	24 h	18 h	12 h	8 h	3.5 h	
Walk-on-dry	72 h	30 h	20 h	12 h	4 h	
Dried to over coat, minimum	54 h	20 h	10 h	6 h	2 h	
Dried/cured for service	21 d	14 d	10 d	5 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.

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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.

Induction time and Pot life

Paint temperature	73 °F
STANDARD GRADE	
Pot life	2 h
WINTER GRADE	
Pot life	45 min

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	194 °F	-
Immersed, sea water	122 °F	140 °F
Immersed, crude oil	176 °F	194 °F

WINTER GRADE
Dry, atmospheric, continuous: 248 °F (120 °C)
Dry, atmospheric, Peak: -

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 shop primer, inorganic zinc silicate shop primer, zinc epoxy, epoxy, epoxy mastic, inorganic zinc silicate
Subsequent coat:	polyurethane, polysiloxane, epoxy, acrylic, vinyl epoxy

Packaging (typical)

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	Volume (liters)	Size of containers (liters)
STANDARD GRADE		
Jotamastic 90 Comp A	3.55 / 15.6	5 / 20
Jotamastic 90 Standard Comp B	1 / 4.4	1 / 5
WINTER GRADE		
Jotamastic 90 Comp A	3.55 / 15.6<S	5 / 20
Jotamastic 90 Wintergrade Comp B	1 / 4.4	1 / 5

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, shaded, 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)

Jotamastic 90 Comp A	48 month(s)
Jotamastic 90 Standard Comp B	24 month(s)
Jotamastic 90 Wintergrade Comp B	24 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.

Environmental Documentation

This product can contribute to Green Building Standard credits. Please refer to Jotun.com for more information or contact your local Jotun representative.

Environmental Product Declaration (EPD) is available at www.epd-norge.no

Caution

This product is for professional use only. The applicator and operator 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 should 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 in 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 sought medical attention immediately.

Color variation

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

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, 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 data given 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.

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