

# Technical Data

## Megacote



### Product description

Megacote is a fast-curing abrasion resistant high solids two-component epoxy anticorrosive coating that will bond to a wide variety of substrates.

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### Recommended use

A multi-purpose epoxy primer for use on all areas (internal and external, above and below water) onboard top quality large yachts. Megacote will bond well to correctly prepared steel, aluminium, galvanised steel, GRP, gelcoat and wood. Suitable for osmosis prevention on GRP hulls when part of an approved Jotun system.

For application in water ballast tanks at newbuilding stage in accordance with PSPC (IMO Res. MSC 82/W), see the "Application procedure for water ballast tanks - Megacote".

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### Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry ( $\mu\text{m}$ )	75	300	150
Film thickness, wet ( $\mu\text{m}$ )	105	415	215
Theoretical spreading rate ( $\text{m}^2/\text{l}$ )	9,6	2,4	4,8

### Comments

For DFTs below 150  $\mu\text{m}$ , thinner should be used

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### Approvals

B1 classification by Det Norske Veritas (DNV) for water ballast tanks.

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## Physical properties

<b>Colour</b>	Aluminium red toned, Off-white and grey
<b>Solids (vol %)*</b>	72 ± 2
<b>Flash point</b>	35°C ± 2 (Setaflash)
<b>VOC</b>	2,17 lbs/gal (260 gms/ltr) USA-EPA Method 24 240 gms/ltr UK-PG6/23(97). Appendix 3
<b>Gloss</b>	Semigloss
<b>Gloss retention</b>	Fair
<b>Water resistance</b>	Excellent
<b>Abrasion resistance</b>	Excellent
<b>Solvent resistance</b>	Excellent
<b>Chemical resistance</b>	Excellent
<b>Flexibility</b>	Good

\*Measured according to ISO 3233:1998 (E)

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## Surface preparation

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

### **Bare steel**

Cleanliness: Blast-cleaning to Sa 2½ (ISO-8501-1:2007). Power tool cleaning to min. St 2 (ISO 8501-1:2007) may be acceptable, subject to exposure conditions.

### **Shopprimed steel**

Clean, dry and undamaged approved shopprimer.

### **Coated surfaces**

Clean, dry and undamaged compatible primer. Please contact your local Jotun office for more information.

### **Other surfaces**

For aluminium substrates: Grit blasting to roughen the surface (minimum surface profile: 40 microns), or grinding with high-quality abrasive pads, such as Scotchbrite pads by 3M company. After preparation, the aluminium should be coated before oxidisation occurs.

The coating may be used on other substrates. Please contact your local Jotun office for more information.

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## Condition during application

The temperature of the substrate should be minimum -5°C and minimum 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is required in confined areas to ensure proper drying. Do not use heated air until the solvents have evaporated from the paint film to avoid surface drying and solvent entrapment. The coating should not be exposed to strain until cured.

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## Application methods

<b>Spray</b>	Use airless spray
<b>Brush</b>	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.
<b>Roller</b>	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.

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## Application data

<b>Mixing ratio (volume)</b>	3 :1
<b>Mixing</b>	3 parts Comp. A (base) to be mixed thoroughly with 1 part Megacote, Comp. B (curing agent)
<b>Induction time</b>	10 minutes.
<b>Pot life (23°C)</b>	1½ hours (reduced at higher temperatures)
<b>Thinner/Cleaner</b>	Jotun Thinner No. 17
<b>Guiding data airless spray</b>	
<b>Pressure at nozzle</b>	15 MPa (150 kp/cm <sup>2</sup> , 2100 psi)
<b>Nozzle tip</b>	0.43-0.79 mm (0.017-0.031")
<b>Spray angle</b>	40-80°
<b>Filter</b>	Check to ensure that filters are clean.

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## 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

<b>Substrate temperature</b>	<b>-5°C</b>	<b>0°C</b>	<b>5°C</b>	<b>10°C</b>	<b>23°C</b>
<b>Surface dry</b>	20 h	14 h	8 h	5 h	2,5 h
<b>Through dry <sup>1</sup></b>	48 h	30 h	16 h	10 h	5 h
<b>Cured</b>		21 d	14 d	10 d	7 d
<b>Dry to recoat, minimum <sup>2</sup></b>	24 h	18 h	10 h	7 h	4 h
<b>Dry to recoat, maximum <sup>3</sup></b>					

<b>Substrate temperature</b>	<b>40°C</b>
<b>Surface dry</b>	1 h
<b>Through dry</b>	2 h
<b>Cured</b>	3 d
<b>Dry to recoat, minimum <sup>2</sup></b>	2 h
<b>Dry to recoat, maximum <sup>3</sup></b>	

1. The earliest time interval that it is possible to exert mechanical strain on the coating, i.e. walk on to recoat.

1. The earliest time interval for recoating with the same generic type of paint. Note that the paint film is not hard at this time and can not withstand mechanical strain.
2. Provided the surface is free from chalking and other contamination prior to application, there is normally no overcoating time limit with itself. 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.
3. Megacote's maximum recoating interval with filler is the given curing time. If such period is exceeded, sanding with P120-P150 and solvent cleaning must be performed prior any filler is applied.

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.

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## Typical paint system

1)	<i>Above water hull and superstructure (aluminium or steel):</i>		
	<b>Megacote aluminium red toned</b>	<b>1 x 125 µm</b>	<b>(Dry Film Thickness)</b>
	Megafiller	8000 µm	(Dry Film Thickness)
	Megafiller Smooth	500 µm	(Dry Film Thickness)
	Megaprimer Grey	1 x 125 µm	(Dry Film Thickness)
	Megaprimer White	1 x 125 µm	(Dry Film Thickness)
	Megaspeed Undercoat*	1 x 50 µm	(Dry Film Thickness)
	Megagloss HG	3 x 20 µm **	(Dry Film Thickness)
2)	<i>Underwater Hull (aluminium or steel):</i>		
	<b>Megacote aluminium red toned</b>	<b>1 x 125 µm</b>	<b>(Dry Film Thickness)</b>
	<b>Megacote off-white</b>	<b>1 x 125 µm</b>	<b>(Dry Film Thickness)</b>
	Megasealer	1 x 125 µm	(Dry Film Thickness)
	Megayacht Imperial Antifouling	2 x 150 µm	(Dry Film Thickness)
3)	<i>Interior Exposed (for example engine room):</i>		
	<b>Megacote aluminium red toned</b>	<b>1 x 90 µm</b>	<b>(Dry Film Thickness)</b>
	<b>Megacote off-white</b>	<b>1 x 90 µm</b>	<b>(Dry Film Thickness)</b>
	TopGloss	1 x 50 µm	(Dry Film Thickness)
4)	<i>Water ballast tanks:</i>		
	<b>Megacote aluminium red toned</b>	<b>1 x 160 µm</b>	<b>(Dry Film Thickness)</b>
	<b>Megacote off-white</b>	<b>1 x 160 µm</b>	<b>(Dry Film Thickness)</b>

\* A show-coat of Megagloss HG may be applied instead of Megaspeed Undercoat. Contact Jotun for more information.

\*\* Three coats applied wet-on-wet.

Other systems may be specified, depending on area of use

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## 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.

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## Handling

Handle with care. Stir well before use.

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## Packing size

18 litre unit: 13.5 litres Comp. A (base) in a 20 litre container and 4.5 litres Megacote, Comp. B (curing agent) in a 5 litre container.

4 litre unit: 3 litres Comp. A (base) in a 5 litre container and 1 litre Megacote, Comp. B (curing agent) in a 1 litre container.

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## 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.**

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## 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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