

# Technical Data

## Jotacote Universal 60



### Product description

Jotacote Universal 60 is a two-pack, universal primer based on epoxy resin with high molecular weight. Gives excellent physical properties such as toughness, flexibility, abrasion resistance and adhesion and has excellent resistance to water and cathodic disbondment.

### Recommended use

As a general purpose primer to protect steel structures. To be used on steel alone or in combination with various systems. If a cosmetic finish is required, it should be used together with a topcoat. Jotacote Universal 60 has good adhesion to a wide range of metals, including aluminium, galvanised and stainless steel. It is suitable for both water ballast tanks and crude oil tanks.

### Film thickness and spreading rate

	Minimum	Maximum	Typical	Total max measured *
Film thickness, dry ( $\mu\text{m}$ )	100	200	150	1200
Film thickness, wet ( $\mu\text{m}$ )	165	335	250	
Theoretical spreading rate ( $\text{m}^2/\text{l}$ )	6	3	4	

### Comments

\* Total maximum measured thickness allowed in accordance with IMO Res. MSC 82/WP.3.

### Physical properties

Colour	Grey, Red , White
Solids (vol %)*	60 $\pm$ 2
Flash point	21°C $\pm$ 2 (Setaflash)
Gloss	Flat
Water resistance	Excellent
Abrasion resistance	Very good
Solvent resistance	Excellent
Chemical resistance	Excellent
Flexibility	Good
Compatibility with cathodic protection	Excellent

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

### 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

Sand swept steel to min. Sa 2 ½ or intact shopprimer. Improved surface treatment will improve the performance.

### Shoppripped 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, galvanized and stainless steel, the surface must be clean and dry. Contact your local Jotun office for further details.

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 at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying. The coating should not be exposed to oil, chemicals or mechanical stress 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. 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>	4,4:1
<b>Mixing</b>	4,4 parts Comp. A (base) to be mixed thoroughly with 1 part Jotacote Universal 60, Comp. B (curing agent).
<b>Induction time</b>	10 minutes.
<b>Pot life (23°C)</b>	5 hours (Reduced at higher temp.)
<b>Thinner/Cleaner</b>	Jotun Thinner No. 17
<b>Guiding data airless spray</b>	
<b>Nozzle tip</b>	0.53-0.69 mm (0.021-0.027")
<b>Spray angle</b>	40-80°
<b>Filter</b>	Check to ensure that filters are clean.
<b>Note</b>	Special requirement for water ballast tanks at new building which are to be built according to PSPC (IMO Res. MSC 82/W): The maximum salt level on the surface is 50 mg/m <sup>2</sup> or 5 µg/cm <sup>2</sup> (ISO 8502-9:1998).

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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

Substrate temperature	5°C	10°C	23°C	40°C
Surface dry	8 h	6 h	4 h	2 h
Through dry	24 h	18 h	10 h	6 h
Cured	14 d	10 d	7 d	3 d
Dry to recoat, minimum	24 h	18 h	10 h	6 h
Dry to recoat, maximum <sup>1</sup>				

- 1 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

For above water

<b>Jotacote Universal 60</b>	<b>1 x 125 µm</b>	<b>(Dry Film Thickness)</b>
Penguard HBII	1 x 125 µm	(Dry Film Thickness)

For under water (hull)

<b>Jotacote Universal 60</b>	<b>2 x 150 µm</b>	<b>(Dry Film Thickness)</b>
Safeguard Plus	1 x 100 µm	(Dry Film Thickness)

For under water (water ballast tanks)

<b>Jotacote Universal 60</b>	<b>2 x 160 µm</b>	<b>(Dry Film Thickness)</b>
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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

China:

20 litre unit: 16,3 litres Comp. A (base) in a 20 litre container and 3,7 litres Jotacote Universal 60, Comp. B (curing agent) in a 5 litre container.

Korea

12.2 litres Comp. A in a 18 litre container and 2,8 litres Jotacote Universal 60, Comp. B in a 4 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 is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.*

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