# Technical Data Sheet



### **Jotamastic 87 Aluminium**

### **Product description**

This is a two component polyamine cured epoxy mastic coating. It is a surface tolerant, high solids, high build product. It is aluminium pigmented for improved barrier effect. Specially designed for areas where optimum surface preparation is not possible or desired. 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 and 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, including water ballast tanks.

#### Protective:

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

#### **Approvals and certificates**

Low flame spread class 1, BS 476, Part 7, 1971. Warrington Fire reasearch, Naval Eng, Stand 713: Issue 3 Grain, Newcastle Occupational Health

Additional certificates and approvals may be available on request.

#### Other variants available

Jotamastic 87 Jotamastic 87 GF

Refer to separate TDS for each variant.

#### **Colours**

aluminium, aluminium red toned

#### **Product data**

| Property               | Test/Standard                          | Description        |  |
|------------------------|--|--------------------|--|
| STANDARD GRADE         |  |                    |  |
| Solids by volume       | ISO 3233                               | 87 ± 2 %           |  |
| Gloss level (GU 60 °)  | ISO 2813                               | semi gloss (35-70) |  |
| Flash point            | ISO 3679 Method 1                      | 40 °C              |  |
| Density                | calculated                             | 1,5 kg/l           |  |
| VOC-US/Hong Kong       | US EPA method 24 (tested)              | 250 g/l            |  |
| VOC-EU                 | IED (2010/75/EU) (calculated)          | 212 g/l            |  |
| VOC-China              | GB/T 23985-2009 (ISO 11890-1) (tested) | 155 g/l            |  |
| WINTER GRADE           |  |                    |  |
| Solids by volume       | ISO 3233                               | 77 ± 2 %           |  |
| VOC-China WINTER GRADE | GB/T 23985-2009 (ISO 11890-1) (tested) | 155 g/l            |  |

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| Flash point      | ISO 3679 Method 1                      | 31 °C    |
|------------------|--|----------|
| Density          | calculated                             | 1.4 kg/l |
| VOC-US/Hong Kong | US EPA method 24 (tested)              | 173 g/l  |
| VOC-EU           | IED (2010/75/EU) (calculated)          | 248 g/l  |
| VOC-China        | GB/T 23985-2009 (ISO 11890-1) (tested) | 194 g/l  |

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

Gloss description: According to Jotun Performance Coatings' definition.

## Film thickness per coat

#### Typical recommended specification range

#### STANDARD GRADE

Dry film thickness 150 - 300  $\mu m$  Wet film thickness 170 - 345  $\mu m$  Theoretical spreading rate 5,8 - 2,9  $m^2/l$ 

#### **WINTER GRADE**

## **Surface preparation**

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

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

#### Surface preparation summary table

|                   | Surface preparation   |   |  |
|-------------------|---|---|--|
| Substrate         | Minimum   | Recommended   |  |
| Carbon steel      | St 2 (ISO 8501-1)   | Sa 2 (ISO 8501-1)   |  |
| Shop primed steel | Clean, dry and undamaged shop primer (ISO 12944-4 6.1)        | Sa 2 (ISO 8501-1)   |  |
| Coated surfaces   | Clean, dry and undamaged compatible coating (ISO 12944-4 6.1) | Clean, dry and undamaged compatible coating (ISO 12944-4 6.1) |  |

## **Application**

#### **Application methods**

The product can be applied by

Spray: Use airless spray (thin 5-10 %).

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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.

#### Product mixing ratio (by volume)

#### **STANDARD GRADE**

Jotamastic 87 Aluminium Comp A 5,5 part(s)
Jotamastic 87 Standard Comp B 1 part(s)

#### **WINTER GRADE**

Jotamastic 87 Aluminium Comp A 3.7 part(s)
Jotamastic 87 Wintergrade Comp B 1 part(s)

#### Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 17

#### **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     | -5 °C | 0 °C | 5 °C | 10 °C | 23 °C | 40 °C |
|---------------------------|-------|------|------|-------|-------|-------|
| STANDARD GRADE            |       |      |      |       |       |       |
| Surface (touch) dry       |       |      |      | 8 h   | 4 h   | 2 h   |
| Walk-on-dry               |       |      |      | 24 h  | 10 h  | 4 h   |
| Dry to over coat, minimum |       |      |      | 24 h  | 10 h  | 4 h   |
| Dried/cured for service   |       |      |      | 14 d  | 7 d   | 2 d   |
| WINTER GRADE              |       |      |      |       |       |       |
| Surface (touch) dry       | 24 h  | 18 h | 12 h | 6 h   | 2.5 h |       |
| Walk-on-dry               | 80 h  | 44 h | 26 h | 16 h  | 6 h   |       |
| Dry to over coat, minimum | 80 h  | 44 h | 26 h | 16 h  | 6 h   |       |
| Dried/cured for service   | 21 d  | 14 d | 7 d  | 3 d   | 2 d   |       |

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 shortest time allowed before the next coat can be applied.

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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 | 23 °C  |
|-------------------|--------|
| STANDARD GRADE    |        |
| Induction time    | 10 min |
| Pot life          | 1.5 h  |
| WINTER GRADE      |        |
| Pot life          | 1 h    |
|                   |        |

### **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 shop primer, inorganic zinc silicate shop primer, zinc epoxy, epoxy, epoxy mastic,

inorganic zinc silicate

Subsequent coat: polyurethane, epoxy, acrylic, vinyl epoxy

## Packaging (typical)

|                                  | Volume   | Size of containers |  |  |
|----------------------------------|----------|--------------------|--|--|
|                                  | (litres) | (litres)           |  |  |
| Jotamastic 87 Aluminium Comp A   | 14.7     | 20                 |  |  |
| Jotamastic 87 Standard Comp B    | 2.7      | 3                  |  |  |
| Jotamastic 87 Wintergrade Comp B | 4        | 5                  |  |  |

The volume stated is for factory made colours. Note that local variants in pack size and filled volumes can vary due to local regulations.

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## **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 23 °C

Jotamastic 87 Aluminium Comp A 48 month(s)
Jotamastic 87 Standard Comp B 48 month(s)
Jotamastic 87 Wintergrade Comp B 36 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.

### **Caution**

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.

#### **Colour variation**

When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering.

#### **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.

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