

# Technical Data

## Hardtop Flexi Alu



### Product description

Hardtop Flexi Alu is a two-pack polyurethane coating with semigloss and good colour retention which provides a high solid, flexible and light aluminium finish, suitable for protection of steel structure where a metallic finish effect is expected.

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### Recommended use

As topcoat over an epoxy/epoxy mastic system where a durable, semi-gloss finish is required in aggressive atmospheric exposure.

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### Film thickness and spreading rate

|  | Minimum | Maximum | Typical |
|--|---------|---------|---------|
| Film thickness, dry ( $\mu\text{m}$ )                | 50      | 110     | 80      |
| Film thickness, wet ( $\mu\text{m}$ )                | 90      | 200     | 150     |
| Theoretical spreading rate ( $\text{m}^2/\text{l}$ ) | 10,8    | 4,9     | 6,8     |

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## Physical properties

|                            |                                       |
|----------------------------|---------------------------------------|
| <b>Colour</b>              | RAL 9006 White Aluminium              |
| <b>Solids (vol %)*</b>     | 54 ± 2                                |
| <b>Flash point</b>         | 28°C ± 2 (Setaflash)                  |
| <b>VOC</b>                 | 400 gms/ltr UK-PG6/23(97). Appendix 3 |
| <b>Gloss</b>               | Semigloss                             |
| <b>Gloss retention</b>     | Good                                  |
| <b>Water resistance</b>    | Very good                             |
| <b>Abrasion resistance</b> | Very good                             |
| <b>Chemical resistance</b> | Good                                  |
| <b>Flexibility</b>         | Excellent                             |

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

Note: This aluminium colour is close to RAL 9006, but exact colour is not possible due to technology limitations. Customer must expect some variations due to variations in application methods, DFT, temperature, humidity, substrate etc.

Hong Kong rules:

Category of paints - Other vessel coatings; VOC 400 gms/ltr HK EPD method (Ready to use); Exempt compound - N/A; Specific gravity: 1.102 gms/ltr (A+B); Both VOC and Specific gravity values provided are typical values, subject to changes when different colour involved.

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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 shopprimer. Corroded and damaged areas to be blast cleaned to min. Sa 2½ (ISO 8501-1:2007).

### Coated surfaces

If applied on top of old coating systems (i.e. epoxy or polyurethane), it may be necessary to abrade the surface.

### Other surfaces

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 required in confined areas to ensure correct drying.

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## Application methods

|              |   |
|--------------|---|
| <b>Spray</b> | Use airless spray   |
| <b>Brush</b> | May be used but care must be taken to achieve the specified dry film thickness. |

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## Application data

|                                   |  |
|-----------------------------------|--|
| <b>Mixing ratio (volume)</b>      | 4:1  |
| <b>Mixing</b>                     | 4 part comp. A (base) to be mixed thoroughly with 1 part Hardtop Flexi, Comp. B (curing agent) |
| <b>Pot life (23°C)</b>            | 2 hours (Reduced at higher temp.)  |
| <b>Thinner/Cleaner</b>            | Jotun Thinner No. 10   |
| <b>Guiding data airless spray</b> |  |
| <b>Pressure at nozzle</b>         | 15 MPa min (150 kp/cm <sup>2</sup> , 2100 psi).  |
| <b>Nozzle tip</b>                 | 0,33 - 0,38 mm (0,011 - 0,017").   |
| <b>Spray angle</b>                | 40-80°   |
| <b>Filter</b>                     | Check to ensure that filters are clean.  |

**Note** Important: Colour and gloss information:  
It is not possible to produce this colour to fully match RAL 9006. A slight variation from what is depicted in RAL colour cards is to be expected. Aluminium finish will also vary in colour and gloss depending on application method, DFT and temperature/humidity during application. This aluminium finish gives a matter aspect than that of traditional polyurethane colours, but a high gloss finish can be obtained applying a polyurethane clear coat. Application of a clear coat may also lead to a slight variation of the aluminium colour shade originally achieved by application of Hardtop Flexi Alu on its own.  
Brush application may deliver gloss/colour difference from application with spray.

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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>10°C</b> | <b>23°C</b> | <b>40°C</b> |
|--|------------|-------------|-------------|-------------|
| <b>Surface dry</b>                         | 6 h        | 3 h         | 1,5 h       | 1 h         |
| <b>Through dry</b>                         | 16 h       | 8 h         | 4 h         | 2 h         |
| <b>Cured</b>                               | 15 d       | 10 d        | 7 d         | 4 d         |
| <b>Dry to recoat, minimum</b>              | 22 h       | 17 h        | 6 h         | 2 h         |
| <b>Dry to recoat, maximum <sup>1</sup></b> |            |             |             |             |

1. The surface must be free from any chalking or any other contamination and if necessary, sufficiently roughened prior to application.

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

As a primer/DTM in atmospheric corrosivity classes C2 and C3, ref. ISO 12944.

**Hardtop Flexi Alu**                      **1 x 80 µm**                      **(Dry Film Thickness)**

As a topcoat in atmospheric corrosivity classes C2 - C4, ref. ISO 12944.

Penguard Express                      1 x 125 µm                      (Dry Film Thickness)

**Hardtop Flexi Alu**                      **1 x 80 µm**                      **(Dry Film Thickness)**

As a topcoat in corrosivity classes C5-I and C5-M, ref. ISO 12944.

Jotacote Universal                      2 x 100 µm                      (Dry Film Thickness)

**Hardtop Flexi Alu**                      **1 x 80 µm**                      **(Dry Film Thickness)**

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

20 litre unit: 16 litres Comp. A in a 20 litre container and 4 litres Hardtop Flexi Comp. B in a 5 litre container

5 litre unit: 4 litres Comp. A in a 5 litre container and 1 litres Hardtop Flexi Comp. B 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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