

Hardtop Eco ME

Product description

This is a two component chemically curing aliphatic acrylic polyurethane coating. It has an aluminium sheen finish with metallic lustre. It is a high solids, aluminium pigmented product. The product has good application properties with low dry spray. To be used as topcoat in atmospheric environments.

Typical use

Protective:
Recommended for buildings and structures where metallic finish is required.

Approvals and certificates

This product contributes to the Green Buildings Standard credits. Please see section Green Building Standards. Additional certificates and approvals may be available on request.

Colours

aluminium

Product data

| Property | Test/Standard | Description |
|-----------------------|---|-------------|
| Solids by volume | ISO 3233 | 73 ± 2 % |
| Gloss level (GU 60 °) | ISO 2813 | matt (0-35) |
| Flash point | ISO 3679 Method 1 | 32 °C |
| Density | calculated | 1.4 kg/l |
| VOC-US/Hong Kong | US EPA Method (theoretical) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong) | 248 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.

Technology limitations make exact colour match of metallic finishes not possible. Variations depending on differences in application methods, DFT, temperature, humidity and substrate must be expected.

Film thickness per coat

Typical recommended specification range

| | |
|----------------------------|----------------------------|
| Dry film thickness | 60 - 100 μm |
| Wet film thickness | 80 - 140 μm |
| Theoretical spreading rate | 12 - 7.3 m ² /l |

Surface preparation

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

Surface preparation summary table

| Substrate | Surface preparation | |
|-----------------|---|---|
| | Minimum | Recommended |
| Coated surfaces | Clean, dry and undamaged compatible coating (ISO 12944-4 6.1.4) | Clean, dry and undamaged compatible coating (ISO 12944-4 6.1.4) |

Application

Application methods

The product can be applied by

- Spray: Use air spray or airless spray.
- Brush: Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

| | |
|-----------------------|-----------|
| Hardtop Eco ME Comp A | 4 part(s) |
| Hardtop Eco Comp B | 1 part(s) |

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 26 / Jotun Thinner No. 10

Jotun Thinner No. 26 shall be used, if HAPs free is a criteria.
No thinner shall be used in LEED projects in order to honor the LEED v4 regulation.
Jotun Thinner No. 10 can be used where aromatic solvents are accepted.

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): | 13-17 |
| Pressure at nozzle (minimum): | 150 bar/2100 psi |

Guiding data for air spray

| | |
|-------------------------------|--|
| Nozzle tip: | HVLP: 11-19 (inch/1000) / Pressure pot: 1.1-1.9 (mm) |
| Pressure at nozzle (minimum): | HVLP: 2.1 bar/30 psi / Pressure pot: 2.1 bar/30 psi |

Drying and Curing time

| Substrate temperature | 10 °C | 23 °C | 40 °C |
|---------------------------|-------|-------|-------|
| Surface (touch) dry | 4 h | 2 h | 1 h |
| Walk-on-dry | 16 h | 8 h | 4 h |
| Dry to over coat, minimum | 10 h | 5 h | 3 h |
| Dried/cured for service | 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.

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 | 23 °C |
|-------------------|-------|
| Pot life | 2 h |

Heat resistance

| | Temperature | |
|------------------|-------------|--------|
| | Continuous | Peak |
| Dry, atmospheric | 120 °C | 140 °C |

Peak temperature duration max. 1 hour.

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures.

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, zinc epoxy, epoxy mastic, polyurethane, intumescent coatings
Subsequent coat: itself

Packaging (typical)

| | Volume (litres) | Size of containers (litres) |
|-----------------------|--------------------|--------------------------------|
| Hardtop Eco ME Comp A | 16 | 20 |
| Hardtop Eco 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.

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

| | |
|-----------------------|-------------|
| Hardtop Eco ME Comp A | 24 month(s) |
| Hardtop Eco Comp B | 48 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.

Green Building Standards

This product contributes to Green Building Standard credits by meeting the following specific requirements:

LEED®v4 (2013)

EQ credit: Low emitting materials

- VOC content for Industrial Maintenance Coatings (250 g/l) (CARB (SCM) 2007) and emissions lower than or equal to 0.5 mg/m³ (CDPH method 1.1).

MR credit: Building product disclosure and optimization

- Material Ingredients, Option 2: Material Ingredient Optimization, International Alternative Compliance Path - REACH optimization: Fully inventoried chemical ingredients to 100 ppm and not containing substances on the REACH Authorization list – Annex XIV, the Restriction list – Annex XVII and the SVHC candidate list.
- Environmental Product Declarations. Product-specific Type III EPD (ISO 14025;21930, EN 15804).

BREEAM® International (2016)

- Mat 01: Product-specific Type III EPD (ISO 14025;21930, EN 15804).

This product is tested by RISE Research Institutes of Sweden/SP Technical Research Institute of Sweden or Eurofins in accordance with California Department of Public Health (CDPH) Standard Method v1.1-2010.

The EPDs are available at www.epd-norge.no

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.
