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# ALU ZM

ZM-RE-PRO-04-A (01/08/06)

Alu ZM is a quick drying one pack coating based on aluminium flakes. It can be applied either without primer on an old, non-corroded hot-dip galvanisation or metallisation layer or as topcoat on top of Zinga. It can be applied by brushing or spraying in a wide range of atmospheric circumstances. Alu ZM is mainly applied for esthetical reasons as it gives a nice aluminium aspect and has a good chemical resistance which allows it to be used in industrial environments.

# **Physical data and technical information**

## Wet product

Components	<ul> <li>aluminium powder</li> <li>aromatic hydrocarbons</li> <li>binder</li> </ul>
Density	1,01 Kg/dm³ (± 0,05 Kg/dm³)
Solid content	- 35% (± 2%) by weight - 25% (± 2%) by volume
Type of thinner	Zingasolv (does not contain xylene or MEK)
Flash point	≥ 40°C to < 60°C

### • Dry film

Colour	aluminium

#### Packing

1L	available, packed in undividable boxes of 6 x 1 L
2,5 L	available
15 L	available

#### <u>Conservation</u>

Storage	store in a cool and dry place
Shelf life	unlimited In case of long time storage it is recommended to shake the unopened tin from time to time.





# **Application data**

## • System recommendations

As topcoat on Zinga	Alu ZM can be applied in 1 layer of 40 to 60 µm DFT as topcoat (by airspray or airless) on top of the anti-corrosion system Zinga on a metal substrate. Even though we always recommend maximum 60 µm DFT for Zinga in a duplex system, in combination with Alu ZM, the maximum layer thickness of Zinga is 120µm DFT in 1 layer applied by airless.
Stripe-coat	We recommend applying a stripe-coat of Alu ZM by brush on all sharp edges, nuts and bolts and welding areas before the application of the first full layer of Alu ZM.

### <u>Coverage and consumption</u>

Theoretical consumption	- for 40 μm DFT : 0,16 L/m² - for 80 μm DFT : 0,32 L/m²
Theoretical coverage	- for 40 μm DFT : 6,19 m²/L
	- for 80 μm DFT : 3,09 m²/L
Practical coverage	depends upon the application method

# Environmental conditions during application

Ambient temperature	- minimum -15°C - maximum 40°C
Relative humidity	- maximum 95%
Surface temperature	<ul> <li>minimum 3°C above the dew point</li> <li>no visual presence of water or ice</li> <li>maximum 60°C</li> </ul>

#### Drying process and overcoating

Drying process	Alu ZM dries by evaporation of the solvent. The drying process is influenced by the total WFT, the number of coats applied, the ambient air and surface temperatures and the air circulation.
Drying time	<ul> <li>for 40 μm DFT at 20°C in a well-ventilated environment with at least 60% relative humidity :</li> <li>touch-dry : after 25 min.</li> <li>dry to handle : after 1,5 hour</li> <li>fully cured : after 24 hours</li> </ul>
Overcoating	<ul> <li>with a new layer of Alu ZM : 1 hour after touch dry</li> <li>Any intermediate coat contamination that could disturb the adherence of the next coat should be removed by appropriate cleaning.</li> </ul>
Reliquidisation	Each new layer of Alu ZM reliquidises the former Alu ZM layer so that both layers form one homogeneous layer.





3/4

# Instructions for use

### • Surface preparation

Cleanliness	- When Alu ZM is applied on top of Zinga, the surface should be free of zinc salts and other contaminations. That means that the Alu ZM must be applied within 24 hours after the application of the Zinga. In case the application of the Alu ZM can only be done after 24 hours, the Zinga surface should first be washed preferably by <b>steam-</b> <b>cleaning</b> at 140 bar at 80°C.
Roughness	When Alu ZM is applied on top of a new hot-dip galvanisation layer, the surface should be roughened by blasting with wet inert product, by using Scotch Brite or a nylon brush.
Maximum time to application	<ul> <li>Apply the Alu ZM as soon as possible on the prepared surface.</li> <li>- in dry circumstances : max. 24 hours waiting time</li> <li>- if the relative humidity is close to 80% : max. 4 hours waiting time</li> <li>If contamination occurs before coating, the surface must be cleaned again as described above.</li> </ul>

# Special instructions

Stirring	<ul> <li>Alu ZM must be thoroughly stirred to achieve a homogeneous liquid before application. After a maximum of 20 min. re-mixing is necessary.</li> <li>During the spraying application, the product must be stirred continuously.</li> </ul>
Dilution	Alu ZM can only be diluted with Zingasolv.
Rinsing of tools and equipment	Before and after using the spraying equipment, it must be rinsed with Zingasolv. Brushes should also be cleaned with Zingasolv. Never use White Spirit.

#### • Application by brush

Viscosity	Alu ZM is ready for use when applied by brush. Do not dilute.
Type of brush	- industrial round brush

## • Application by roller

Viscosity	Alu ZM is ready for use when applied by roller. Do not dilute.
Type of brush	Industrial short haired roller (not foam based)



4/4

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## Application by conventional spray-gun

Viscosity	10 to 20% Zingasolv (volume on volume)
Pressure at the	2 to 4 bar
nozzle	
Nozzle opening	1,4 to 1,8 mm

#### • Application by conventional spray-gun with pressure pot

Viscosity	10 to 20% Zingasolv (volume on volume)
Pressure at the nozzle	2 to 4 bar
Pot pressure	0,8 to 1,5 bar
Nozzle opening	1,4 to 1,8 mm

#### <u>Application by airless spraying</u>

Dilution	0 to 5% (volume on volume)
Pressure at the nozzle	100 to 200 bar
Nozzle opening	0,017 to 0,021 inch

For more specific and detailed recommendations concerning the application of Alu ZM, please contact the Zingametall representative. For detailed information about the health and safety hazards and precautions for use, please refer to the Alu ZM **safety data sheet**.

Waiver\*

<sup>\*</sup> The information on this sheet is merely indicative and is given to the best of our knowledge based on practical experience and testing. The conditions or methods of handling, storage, use or disposal of the product cannot be controlled by us and are therefore outside our responsibility. For these and other reasons we retain no liability in case of loss, damage or costs that are caused by or that are linked in any way to the handling, storage, use or disposal of the product. Any claim concerning deficiencies must be made within 3 months upon reception of the goods quoting the relevant batch number. We retain the right to change the formula if properties of the raw material are changed. This data sheet replaces all former specimens.