zandleven coatings

AQUISIL® AMC-AL

polysiloxane

One component high-heat resistance silicon titanium-ester aluminium/graphite coating.

- Excellent adherence on pre-blasted or chemical pre-treated stainless steel. and on blasted steel.
- Temperature resistance from –200°C up to +600°C.
- Good resistance against a warming-up speed of 60°C per minute.
- After normal (physical) hardening, good removable and outdoor resistance.
- Drying and hardening will take place at roomtemperature
- Optimal hardening and resistance will be bobtained after thermal curing above 120°C.
- To apply in 2 or 3 layers with a minimum film thickness of 100 µm.
- Maximum exceeding of film thickness: 50%.
- No free silicone part, no silicone contamination

Application in chemical and/or maritime (containing chloride) environment on steel and stainless steel machinery, ovens, pipelines etc. for the prevention of stress corrosion.

Product information

Finish	Metal gloss
Color	Light-Aluminium
Mass density	approx. 1.55 kg/L
Solids content by volume	approx. 56 volume %
VOC	approx. 350 gr./L (volatile organic compound)
Recommended film thickness	Brush application: 3 layers of 35 µm d.f.t. 60 µm w.f.t. Spray application: 2 layers of 50 µm d.f.t. 90 µm w.f.t. Above mentioned film thickness shouldn't be exceeded by more than 50%.
Theoretical spreading rate	At 35 µm d.f.t. 16.0 m²/L At 50 µm d.f.t. 11.2 m²/L
Practical spreading rate	Depending on several factors like shape of object, profile of surface, method of application, application circumstances and experience. A few guiding principles are: Brush/roller 85-90% of the theoretical spreading rate Spraying 50-70% of the theoretical spreading rate
Flashpoint ISO 1523	Paint 30°C Thinner BB 55 28°C
Dry temperature resistance	-200°C up to +600°C
Shelf life	Material should be stored in a dry, shaded environment away from heat & ignition sources. Do not allow material to freeze. Shelf life is minimum 12 months at 23°C.

Drying times

For d.f.t. up to 75 µm	30°C	20°C	10°C
Dust dry	20 minutes	45 minutes	75 minutes
Manageable	16 hours	24 hours	36 hours
Heat load	3 days	5 days	7 à 10 days
Recoatable:			
Minimum interval	5 hours	7 hours	24 hours
Maximum interval	Unlimited, provided that the surface is clean and dry.		
	Film thickness, ventilation, temperature and relative humidity are of great influence on the drying times.		
Application of the isolation	After 48 hours after the last layer has dried.		

Application instructions

Application conditions

During the application and the hardening the temperature should be above 5°C.

The surface should remain dry and the temperature of the surface should at least be 3°C above dew point.

During application and hardening in closed or small spaces, it is necessary to refresh the air continually to remove the solvent vapours, this because of drying, health and safety.

Usage information

	Airless-spray	Airspray	Brush/roller
Type of thinner	BB 55	BB 55	BB 55
Recommended thinner (depending on application and equipment)	0 – 5 vol. %	5 – 10 vol. %	0 – 5 vol. %
Nozzle orifice	0.38 – 0.43 mm 0.015 – 0.017 inch	1.8 – 2.2 mm	
Nozzle pressure	140 – 160 bar	3 – 4 bar	
Maximum attainable d.f.t.	75 µm	75 µm	50 µm
Cleaning of tools	Thinner BB 55		

Surface conditions

Steel

New steel:
Blast according to the ISO norm 8501-1:2007 Sa 2½.
Roughness profile Ra 6-10 µm Rz 30-50 µm.
Surface should be clean and dry.

Stainless steel

New stainless steel:
Blast with a fine, non-metallic blasting medium until a level roughened surface is obtained or degrease the surface with a suitable thinner and etch the surface according instruction chemical supplier

Do no touch the pretreated surface with bare hands.

Primer:
Apply Aquisil AMC-AL directly on the pre-treated surfaces.

Repair and maintenance:
Clean the surface thoroughly with a suitable cleaning preparation or by steam cleaning.

Remove salts and other water soluble impurity by spraying with clean tap-water under high pressure.

Remove rust a.o. by (water)blasting Sa 2½ or derust mechanical until St. 2-3, in accordance with ISO 8501-1:2007.

Apply the advised paint system on a clean surface.

- Mechanical or hand derusting gives less quality than (water)blasting
- and will result in less protection of the applied paint system.

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Ventilation precaution

Minimum required quantity of air to comply with:		
	IOELV(EU)	10 % LEL
Aquisil AMC-AL	1200 m³/L	77 m³/L
Thinner BB 55	3935 m³/L	167 m³/L

IOELV = Indicative Occupational Exposure Limit Values
LEL = Lower Explosion Limit
Also consult the security information sheets

Additional and applicable information (www.zandleven.com)

- General guidelines
- Material Safety Data Sheet
- information curing agents en thinners
- Color surcharge
- General terms and conditions of delivery