Thermaguard® CUI 650 siloxane

Thermaguard CUI 650 is a single pack, inert multi polymeric matrix, high build primer, designed with special pigments and additives, obtaining a coating with high temperature resistance up to 650°C, boiling water resistant and suitable for cyclic thermal conditions.

- Prevents corrosion under insulation (CUI), on carbon steel and stainless steel substrate
- Drying and hardening will take place at room temperature
- Damage due to transportation will be reduced
- To apply on hot substrate, up to 150°C
- Application without shutdown
- Application on mechanically pre-treated substrates

Specific properties

- As anti corrosion primer, on insulated as well on non-insulated generic processing, pipework, vessels, tanks and as primer for Thermaguard TC1200 topcoat.
- Thermaguard CUI 650 meets the NACE SP0198-2017 requirements
- Exceptional resistance to thermal cycling high temperature up 650°C
- Prevents stainless steel cracking, due to chloride exposure
- Oprating rage within -196°C to 650°C
- Recoatable after ageing, in accordance with application instructions

Product information at 20°C

Finish	Matt
Color	light and dark grey
Mass density	approx. 1.96 kg/L
Solids content by volume	approx.572 volume %
VOC	approx. 342 gr./L (volatile organic compound)
Recommended film thickness	brush application: 3 layers of 80 micron DFT Spray application: 2 layers of 150 micron DFT Above mentioned film thickness shouldn't be exceeded by more than 50%.
Theoretical spreading rate	At 100 µm d.f.t. 5.7 m²/L At 150 µm d.f.t. 3.8 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 >61°C Thinner BB 55 27°C Thinner FF 55 41°C
Dry temperature resistance	-196°C up to +650°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 23ºC.

Drying times

For d.f.t. up to 75 µm	35°C	23°C	10°C
Dust dry	1 hour	2 hours	6 hours
Manageable	16 hours	24 hours	36 hours
Recoatable:			
Minimum interval	4 hours	6 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 / FF 55	BB 55	BB 55
Recommended thinner (depending on application and equipment)	0 – 10 vol. %	0 – 10 vol. %	0 – 10 vol. %
Nozzle orifice	0.38 – 0.53 mm 0.015 – 0.021 inch	1.8 – 2.2 mm	
Nozzle pressure	160 – 200 bar	2 – 3 bar	
Maximum attainable d.f.t.	150 µm	120 µm	80 µm
Cleaning of tools	Thinner BB 55		

Surface conditions

Steel

New steel:
Abrasive blast clean to Sa 2½ (ISO 8501-1:2007) or SSPC-SP10. The resulting surface profile should be: RZ 30 – 50 µm.

Stainless steel

New stainless steel:
Abrasive sweep clean using non-metallic & chloride free abrasive. The resultating surface profile Rz should be: 30 – 50 µm.

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.

Application substrate temperature

Thinner BB55, from 10°C up tot 60°C
Thinner FF55, from 60°C up to 150°C

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Ventilation precaution

Minimum required quantity of air to comply with:		
	IOELV(EU)	10 % LEL
Thermaguard CUI 650	1692 m³/L	71 m³/L
Thinner BB 55	3935 m³/L	165 m³/L
Thinner FF 55	1750 m³/L	163 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

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