ALLTER

ALTERNATE CORROSION PREVENTION SYSTEMS

Allter-Therm™ 600 ALU

PRODUCT DATA SHEET

Selection and Specification Data

Generic Type	Pure Inorganic silicate polymer
Product Description	Allter-Therm™ 600 ALU is a high performance single-component pure inorganic high temperature resistant coating, designed to protect carbon- and stainless steel atmospheric exposed substrates in both cryogenic and elevated temperature applications. The material is fully ambient curing and can withstand temperatures from -196°C up to 600°C (-321 up to 1112°F). Application examples are non-insulated piping, process vessels, storage tanks, heat exchangers, stacks, ductwork, steam pipes and other equipment in various industries such as in petrochemical facilities, chemical plants, Offshore, power plants, refineries etc.
Features	● Outstanding thermal cycling resistance ● Single component, easy to use coating ● Self-priming (DTM) on carbon-and stainless steel substrates ● Service tolerant and UV resistant ● Prevents stress corrosion cracking (SCC) of stainless steels ● Service temperature from -196 up to 600°C (-321 up to 1112°F) ● Can be applied on hot substrates (up to max. 130°C/266°F) ● Can be applied with Airless, conventional spray and brush & roller ● Can be used for in shop (OEM) as well maintenance applications ● No need for heat curing ● Can be topcoated with Allter-Therm™ 650 TC (various RAL and safety colours)
Color	Light- and dark aluminum
Finish	Eggshell
Primer	Self-priming
Dry Film Thickness	25-75micron (2-3 mils) per coat. Two coats are recommended for maximum system performance. Minimum DFT per coat is 25micron (1 mil). Maximum DFT per coat is 100micron (4 mils). Maximum system dry film thickness 200micron (8 mils).

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Volume Solids	68% ±2%
Theoretical Coverage Rate	10.0m²/l at 50micron DFT (407.5 ft2/gal at 2 mils) 6.66m²/l at 75micron DFT (271.4 ft2/gal at 3 mils)
VOC	324g/l (2.7 lbs/gal)
Temperature Resistance	-196 up to 600°C (-321 up to 1112°F)
Topcoats	itself or Allter-Therm™ 650 TC for improved esthetics and/or safety recognition

Substrate and Surface Preparation

General	Remove all dirt, grease, mill scale, loose rust and any other contaminants that can reduce adhesion according SSPC-SP1 solvent cleaning, followed by the recommended substrate preparation as listed below.
Atmospheric exposed carbon steel	For maximum system performance, abrasive blasting according to Sa2½ (ISO 8501-1) with a 30-50micron (1.2-2mils) surface profile (Rz). For maintenance or when blasting is no option, SSPC-SP11 with a minimum 25micron (1 mil) surface (Rz) profile may be an alternative.
Atmospheric exposed stainless steel	For maximum system performance, abrasive blasting according to SSPC-SP16 with a 30-50micron (1.2-2mils) surface profile (Rz), using a non-metallic inert abrasive media such as aluminum oxide or garnet. For maintenance or when blasting is no option, SSPC-SP11 with a minimum 25micron (1 mil) surface profile (Rz) may be an alternative.

Mixing and Thinning

Mixing	Use low speed mechanical mixing equipment until a uniform consistency is reached. Keep the material mixed or regularly agitated during spraying. The material is reactive with moisture. Keep covered to prevent skinning.

Thinning		10-60°C (10-50°F)	60-130°C (50-302°F)	>130°C (>302°F)
	Airless:	0-5% Thinner 21	0-10% Thinner 21	-
	Conv. spray:	0-10% Thinner 100	0-10% Thinner 100	-
	Brush/roller:	0-5% Thinner 21	0-10% Thinner 200	-

Application Equipment

General	The following information can be used as a guideline to apply the coating system. Site conditions may require modifications in spray pressure and tip sizes.
Conventional spray	Pressure pot equipped with dual regulators, a 3/8”ID material hose, a 1.8-2.2mm. fluid tip and 2.1-2.8bar (30-40psi) fluid pressure.
Airless spray	A minimum 30:1 pump ratio, with a minimum 3/8” ID material hose, 0.015-0.017” tip size and 140-160 bar (2030-2320 psi) pressure. Remove all filters.
Brush and roller	Use a natural bristle brush and apply the material in full strokes. Avoid re-brushing. If rolled, use a short nap roller with solvent resistant core. Avoid rerolling.

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Application Conditions

	Condition	Material	Surface	Ambient	Rel. Humidity
	Minimum	13°C (55°F)	10°C (50°F)	10°C (50°F)	35%
	Maximum	32°C (90°F)	130°C (266°F)	50°C (122F)	85%
	This material requires the substrate temperature to be 3°C (5°) above dew point				

Curing Schedule				
	Temperature	**Touch dry**	**Dry to recoat**	**Dry to handle**
	10°C (50°F)	6 hours	16-24 hours	36 hours
	23°C (73°F)	2 hours	6-8 hours	24 hours
	38°C (100°F)	1 hour	4-6 hours	16 hours
	130°C (266°F)	N/A	N/A	N/A
	Note: Drying times can vary upon different environmental conditions. Material should be applied within the supplied parameters to ensure drying and recoat times are respected. Material is fully curing under ambient conditions and does **not** require heating to obtain its mechanical and corrosion protective properties. This material has an unlimited recoat time, even after exposure at elevated temperatures.			

Cleanup and Safety Information

Cleanup

Use Thinner 21

Safety

This material is for professional use only. Please observe the precautionary information on the safety data sheets (SDS) and label on the containers before using this material. Use of this material must be kept in compliance with local health, safety and environmental conditions and regulations.

Packaging, Handling and Storage

Shelf life

Minimum 12 months at 23°C (73°F)

Storage temperature and humidity

4 - 50°C (39-122°F).
85%.

Storage

Material should be stored indoors, well ventilated and away from sources of heat and ignition.

Shipping weight

5 litres (9.5 kg) 1.32 Gallon (20.95 lbs)
10 litres (19.0 kg) 2.64 Gallon (41.9 lbs)

Flash point (ISO 1523)

30°C (86°F)

DATE: Januari 2020

DISCLAIMER: Allter Coatings warrants that the product(s) represented within conform(s) to its/their chemical and physical description and is appropriate for the use as stated on the respective technical data sheet when used in compliance with Allter Coatings written instructions. Since many installation factors are beyond the control of Allter Coatings the user is obligated to determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Allter Coatings liability is stated in the standard terms and conditions of sale. Allter Coatings makes no other warranty either expressed or implied. All information contained in the respective technical data sheet(s) should be used as a guide and is subject to change without notice. This document supersedes all previous revisions. Please see revision date on the left. Allter® is a registered trademark.