



TECHNICAL DATA SHEET

Insulating Aluminum Oxide Barrier Coating ATC-LV3

DESCRIPTION:

ATC-LV3 is a single-component, epoxy aluminum oxide physical and reaction barrier coating that provides anti-eutectic protection between separate surfaces as well as seals porous surfaces in high-temperature vacuum furnaces. ATC-LV3 can be used to seal rigid graphite plates, insulation/felt as well as porous graphite and carbon components.



ATC-LV3 dries to the touch within 30 minutes depending upon film thickness which allows coated parts to be handled and assembled quickly. Once fully cured (30 minutes at 120 - 140°C), ATC-LV3 exhibits excellent adhesion to a variety of substrates as well as good chemical and electrical resistance while maintaining physical properties.

ATC-LV3 may be re-coated as necessary within 30 minutes of initial application to provide required final film thickness.

ATC-LV3 exhibits excellent thermal stability and non-dusting over a range of temperatures up to 1400°C (2550°F) in non-oxidizing environments.

ATC-LV3 is VOC compliant to current AIM regulations.

PHYSICAL PROPERTIES

	Method	Typical
Viscosity, cps (25°C/1333 sec-1 shear rate/CAP2000+L)	ASTRO-CAP	550 ± 150 cps
Percent Solids	ASTM D115	72.0 ± 1.0%
Density (g/ml) @ 25°C	ASTM D1475	1.47 g/ml
Lbs. per gallon @ 25°C	ASTM D1475	12.3 lbs./gal
VOC, g/l	ASTM D3960	313 g/l
VOC, lbs./gal	ASTM D3960	2.6 lbs./gal
Color		Beige

Please note information provided is illustrative and not intended as specifications.



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SHAKE WELL PRIOR TO USE: ATC-LV3 may soft-settle or build viscosity during storage. Containers should be shaken thoroughly (~10 minutes) prior to use.

APPLICATION GUIDELINES:

- Prior to application, all surfaces must be clean, dry and free of dirt, dust, oil particulates and all other contamination;
- ATC-LV3 may be applied by spray, brush, roller or dip.
- Recommended Dry Film Thickness = 2 – 4 mils (May vary by use.)
- Coverage (ft²) per gallon
 - o ~575 ft² at 2 mil DFT
 - o ~285 ft² at 4 mil DFT
- Can be used as received, but may be thinned as needed using acetone, MEK, methyl acetate or t-butyl acetate. Recommended dilution = 5 – 10% by weight.
 - o Touch Dry = 20 minutes
 - o Recoat = 20 minutes
 - o Handle Dry = 1 hour (Note: Will not achieve final properties until thermally
- Full Cured Properties = 1 hour at $\geq 120^{\circ}\text{C}$ or 30 minutes at \geq cured.) 140°

HANDLING PRECAUTIONS: *This product contains acetone which is flammable and highly volatile solvents. Product should be stored in its original sealed UN rated container away from sources of heat, flame, ignition, and direct sunlight until prior to use. Containers should be opened in a well-ventilated area using proper personal protection equipment, including chemically-impervious gloves, eye and skin protection. Care should be taken when opening container after shaking, as pressure may build in the sealed container during the shaking process. Eliminate all sources of heat and ignition such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Electrically bond and ground equipment. Please refer to SDS for specific recommendations.*

STORAGE: For longest shelf life, ATC-LV3 should be stored in sealed containers at 42 - 52°F (6 - 11°C) and away from sources of heat, flame, ignition, and direct sunlight. ATC-LV3 can be stored sealed containers stored away from sources of heat, flame, ignition and direct sunlight at <85°F (29°C), but shelf life will be reduced. All containers should be stabilized at <77°F (25°C) prior to use.

SHELF LIFE: The shelf life of ATC-LV3 is one (1) year from date of manufacture when stored in sealed containers stored away from sources of heat, flame, ignition and direct sunlight at 42 - 52°F (6 - 11°C), and six (6) months when stored in sealed containers stored away from sources of heat, flame, ignition and direct sunlight at <85°F (29°C). Manufacturing date is indicated on the label. Disposal should be done in accordance to local, state and Federal regulations. Please consult the Safety Data Sheets for more specific handling and disposal information.