

Aremco's refractory paint systems offer the ultimate protection of high temperature structures used in the processing of metals, glasses and plastics.

PRODUCT HIGHLIGHTS

Pyro-Paint™ 634-AS and 634-AS1

These alumina-silica based advanced coatings are rated for continuous service temperatures up to 2300 °F. Provides excellent adhesion to ceramic fiber blankets, modules and boards and resists wetting by nonferrous molten metals, increasing the durability and erosion resistance of the underlying material. High dry film thicknesses from 10-50 mils can be achieved with this coating. Select 634-AS for thin coating applications and 634-AS1 for high build applications.

Pyro-Paint™ 634-AL

This pure, alumina based compound creates a hard, high temperature resistant coating for refractory fiber boards and shapes, providing exceptional resistance to molten metals and open flames to 3200 °F (1760 °C). Increases heat reflectivity in furnaces to improve efficiency and ramp up temperatures more rapidly.

Pyro-Paint™ 634-BN and 634-BN(SC)

These highly-filled boron nitride solutions are extremely lubricious and inert. They are non-wetted by molten salts, glasses, plastics, and most metals including aluminum and magnesium. Select 634-BN for hard coat; 634-BN(SC) for softer, lubricious coat.

Pyro-Paint™ 634-CA and 634-GR

These carbon and graphite based coatings are formulated for parting of aluminum permanent molds, non-sticking in glass forming applications, and lubrication and stop-off in metalworking and wire drawing. Provides superior release, surface finish and mold protection.

Pyro-Paint™ 634-SIC

This advanced silicon carbide, water-based coating reduces significantly the oxidation of graphite and carbon components and structures at temperatures to 2550 °F (1400 °C). Provides a hard surface and withstands thermal cycling.

Pyro-Paint™ 634-YO

This ultra high temperature yttrium oxide coating provides exceptional protection of graphite, ceramic and metal components exposed to reactive molten metals such as titanium, uranium and their alloys. Usable in vacuum and inert atmospheres to 2732 °F (1500 °C).

Pyro-Paint™ 634-ZO

This highly-filled zirconium oxide-based coating produces a hard, chemically-resistant protective layer which is stable with aluminum, molybdenum, platinum, rhodium, and titanium. It is ideal for sealing porous ceramics and protecting other ceramic, graphite and metal structures up to 3270 °F. Exceptional for coating resistance wire heating elements in furnaces, protecting them from residue buildup which causes arcing and reduced element life.

Features

Ultra Hi-Temp Resistance

Non-Wetted by Molten Metals, Salts, Glass & Plastics

High Lubricity for Easy Part Release

Minimizes Cast Surface Defects

Increases Mold & Die Life

For Use in Oxidizing, Reducing & Vacuum Atmospheres

Applications

Composite Forming

Glass Forming

Metal Casting

Injection Molding

Ceramic Hot-Pressing

Metal Powder Sintering

Welding

Brazing



PYRO-PAINT™ PROPERTIES

	634-AS/AS1	634-AL	634-BN/BN (SC)	634-CA	634-GR	634-SIC	634-YO	634-ZO
Major Constituent	Alumina-Silica	Alumina	Boron Nitride	Carbon	Graphite	Silicon Carbide	Yttria	Zirconia
Temperature Limit, °F (°C)	2300 (1260)	3200 (1760)	1560 (850)①	2200 (1200)	2200 (1200)	2550 (1400)	2732 (1500)	3270 (1800)
% Solids by Weight	61.2/77.0	76.8	46.4	43.0	58.1	74.5	42.7	54.0
% Solids by Volume	63.3/70.0	66.0	50.3	37.2	47.9	53.0	23.0	32.4
Theoretical Coverage ft ² / Gal @ 1 Mil DFT	1015/1123	1060	802	597	770	850	370	490
Application Temperature, °F	50-90	50-90	50-90	50-90	50-90	50-90	50-90	50-90
Recommended Curing Min Air Set, Hrs Cure, °F/Hrs,②	2 200/2	2 200/2	2 200/2	2 200/2	2 200/2	1 200/2, 800/1	0.5 200/1	2 200/2
Color	Off White	White	White	Black	Black	Gray	White	Tan
No. Components	1	2	1	1	1	1	1	1
Mix Ratio ③	N/A	75:25	N/A	N/A	N/A	N/A	N/A	N/A
Viscosity, cps	500/14,000	8,000	5,000-6,000	Paste	Paste	3,600	1,000-2,000	3,000-5,000
Thinner ④	634-AS-T 634-AS1-T	634AL-T	634 BN-T 634-BN(SC)-T	634 CA-T	634-GR-T	634-SIC-T	634-YO-T	634-ZO-T
Specific Gravity, gms/cc	1.59/1.70	2.27	1.34	1.20	1.46	2.10	1.50	1.84
Coating pH	8.0	4.0	11.0/8.0	8.5	9.0	2.0	8.0	11.0
Flash Point, °F	N/A	N/A	N/A	N/A	N/A	N/A	75	N/A
Shelf Life, months	6	6	6	6	6	6	6	6
Storage, °F	40 to 90	40-90	40-90	40-90	40-90	40-90	40-90	40-90
Weight / Gallon, lbs	12.0/15.0	19.0	11.0	9.5	12.0	16.5	12.0	15.4

Footnotes

- ① Temperature limit applies to oxidizing atmospheres only. Can be used in vacuum/inert atmospheres to 2000 °C.
- ② A short cure is recommended, however, most of these products can be air set then ramped up to operating temperature immediately.
- ③ Mix ratio is Powder:Liquid. Ratios may be altered as required to adjust viscosity.
- ④ Distilled water may also be used to thin all products. Use 1-2% distilled water by weight.

Key

N/A = Not Applicable

INSTRUCTIONS

All Pyro-Paint products are water-based, easy-to-use systems which dry to touch in less than 2 hours and are usually ready to cycle in a couple of hours. Thick build or multi-layered coatings should be allowed to dry for 16-24 hours and heat cured after

drying for 1-2 hours at 200 °F. Follow the same procedure in high humidity conditions or if blistering occurs. Cleanup can be accomplished with warm water and soap.

Refer to Price List for complete order information.

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The user assumes all risk of use or handling whether or not in accordance with directions or suggestions, or used singly or in combination with other products.