

AT 1420 – ALPHASHIELD ELITE (MILITARY GRADE)

NANO-CERAMIC COATING

TECHNICAL DATA SHEET

AT 1420 - AlphaShield Elite is the ultimate firearm coatings developed specifically for military small arms and crew-served weapon applications. AT 1420 effectively manages the visual and near-infrared signature while at the same time enhancing thermal protection and durability. It offers superior wear and corrosion resistance in extreme conditions. AT 1420 maintains peak performance under conditions where competing products fail.

The coating is tough, durable and provides long term protection against corrosion, weathering, and abrasion. Unlike most competing products, AT 1420 also offers high temperature insulation performance. AT 1420 is only available for sale to military and law enforcement agencies.

Proudly manufactured in the USA.

Technical Data

Color	Solid Tone Colors
Viscosity	16-16.3 sec. #2 Zahn
Percent of Solids (%)	46
V.O.C	Exempt per CFR 51.1 / Regulation 8
RoHS	Compliant
REACH	Compliant
Halogens	None
Thermal Stability. Resin (cured)	1200°F + / 648.8°C +
Conical Bond (1/4" Mandrel) (ASTM D522-93a)	Passed
Cross Cut Adhesion (ASTM D3359)	5B
Coefficient of Friction (ASTM D2047)	0.05μ
Specific Gravity (ASTM D891-09)	0.9
Pencil Hardness (ASTM D3363)	9h +
Salt Fog Test (ASTM B117)	3500 hours
Odor (liquid)	Slight Solvent
Odor (cured)	None

Drying and Coverage Rate

Average Applied Dry Film Thickness	2 to 5 microns (0.4 – 1 mil)
Estimated Coverage Rate (@ 3 microns)	6,250 ft ² (580 m ²) per gallon
Dry to Touch Time (@ 77°F / 25°C) *Exposing to a warmer air flow (not exceeding 110°F) will decrease dry time	15 – 25 minutes (average)
Ambient Cure (Full Properties)	5 days
Cure Time (@350°F) *Oven cure only after coating is dry to touch	30 – 40 minutes (average)

Key Performance Properties

- High performance single component coating.
- Extreme adhesion. Forms covalent bond to the substrate giving it an intrinsic bond to surfaces
- Very tough and durable.
- Excellent UV, chemical and abrasion resistance.
- High anti-corrosion performance.
- Extreme heat & flame resistance (1200°F+/648°C+)
- Unparalleled thermal insulation protection
- Conform to NIR reflectivity standards outlined in MIL-DTL-44436
- Easy to apply. Curable by ambient air (accelerated oven curing possible)
- May be applied to metal and non-metal surfaces
- VOC exempt
- RoHS and REACH compliant

Common Applications

Any firearm component that requires high temperature protection including suppressor, barrel, muzzle brake, rail and handgrip.

Supplemental Information

Also available:

- AT 1400 - AlphaShield
- AT 1405 - AlphaShield Grip
- AT 1410 - AlphaShield Ultra for maximum performance
- AT 1450 - AlphaShield Bore Coat (dry lubricant)

Available in a wide variety of colors.