

AT 1410 – ALPHASHIELD ULTRA

NANO-CERAMIC COATING

TECHNICAL DATA SHEET

AT 1410 - AlphaShield Ultra gun coating is the maximum performance protective coating for firearms available to the civilian market. The coating is tough, durable and provides long term protection against corrosion, weathering, and abrasion. It may be applied to metal and non-metal surfaces. Coating is thermally stable to extreme temperatures (1200°F+ / 648°C+) and it retains adhesion even after multiple thermal cycles. Unlike most competing products, AT 1410 also offers insulation performance in addition to high temperature protection. 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) *Warmer air flow (not exceeding 110°F) will decrease drying 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.
- Unparalleled thermal insulation protection.
- 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 1420 - AlphaShield Elite (military grade)
- AT 1450 - AlphaShield Bore Coat (dry lubricant)

Available in a wide variety of colors.