

CERAKOTE

HEAT TRANSFER COATING

The Most Thermally Conductive High Temperature Coating In The World.

Introducing the most thermally conductive high temperature coating in the world. This coating is engineered to combine excellent thermal conductivity, as well as high surface emissivity, in a thin film inorganic ceramic coating. Our advanced inorganic resin technology enables excellent physical attributes at high temperatures, while the unique incorporation of conductive materials transfers heat to the surface where it is emitted at a very high rate. No other thin film coating offers this combination of performance and functionality.

Outstanding Performance Capabilities:

- Temperature Stability to ~1400°F (based on substrate, coating will perform up to 2200°F)
 - Excellent hot adhesion to: Inconel, Hastelloy, Stainless, Mild Steel, Copper, Brass, and all alloys of Aluminum
- 100% inorganic formulation
 - Completely UV stable
 - Won't degrade with heat
- High surface emissivity
- The most thermally conductive coating in the world
 - @ 20w/(m*k) theoretical value
- The most durable high temperature coating in the world:
 - Leading high temperature corrosion resistant coating
 - Excellent 9H Scratch/8H Gouge hardness (ASTM D3363)
 - Direct and indirect impact resistance of 160 in-lbs. (ASTM D2794)
 - 0mm coating loss at 180° mandrel bend (ASTM D522)
 - Extremely high chemical resistance (specific chemical performances available by request)

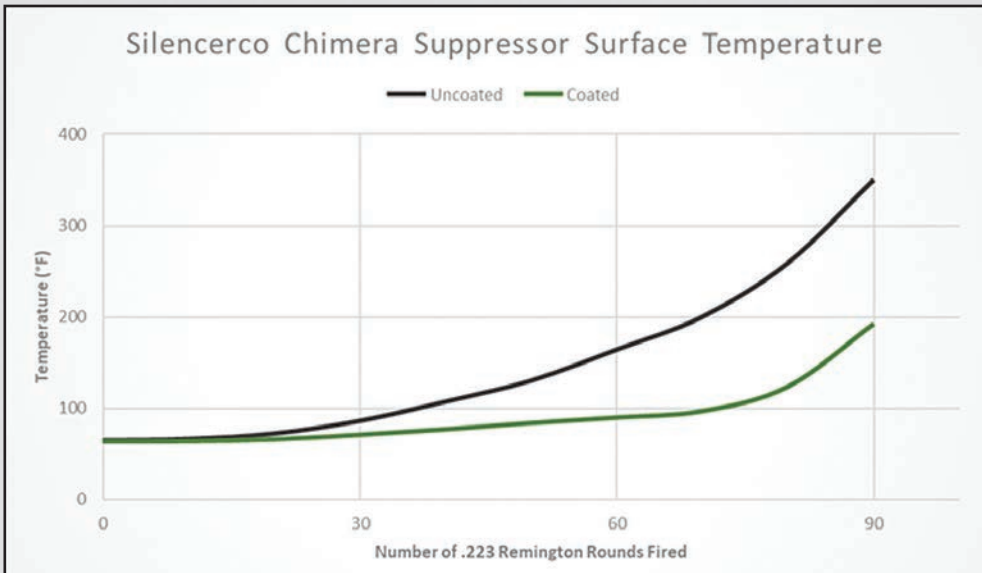


World-Class Performance With The Following Attributes:

- Distinctive high-end, dark grey tone derived from its unique composition
- Easy application, single coat, and oven cured
- World class performance at 0.5 mil/.0005" (12.7µm)
- 3 unique cure schedule options to meet your production needs

Technical & Performance Data

- Gloss Level..... Matte, 7-10 Gloss Units
- Theoretical Solids by Weight..... 74%
- Theoretical Coverage per Gallon at 0.5 mil..... 2374 sq. ft.
- Viscosity (Brookfield Viscometer)..... ~45 cP
- Recommended Film Thickness..... 0.5mil/0.0005" (12.7µm)
(However can be applied up to 1.0mil/0.001" (25.4µm))
- Adhesion Cross-Cut Tape (ASTM D3359).....5B
- Shelf Life: 12 months from date of shipment



After 90 rounds of .223 cal., the coated suppressor is 157° F cooler than the uncoated suppressor.

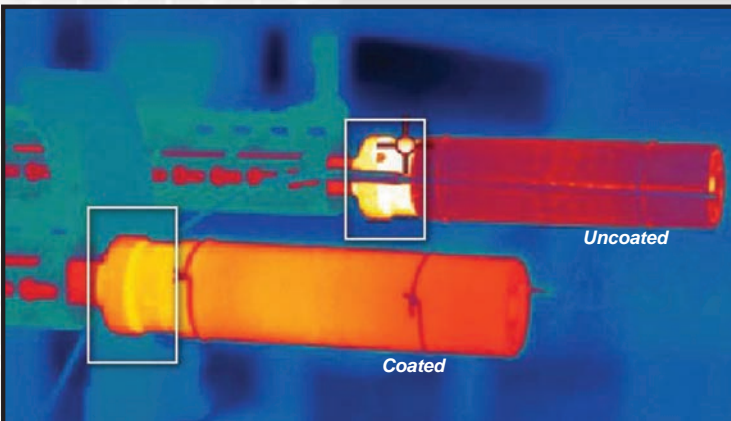
Recommended applications include, but are not limited to:

- Suppressors
- Barrels
- Heat Sinks
- Heat Exchangers
- Lighting
- Intercoolers
- Fin Fan Coolers
- Power Supplies
- Inverters
- Amplifiers
- Battery Systems

...anything requiring a heat conducting and emissive coating.



Suppressor being water quenched after 450 rounds in under 4 minutes.



Radiometry imaging shows the higher thermal emittance of the coated suppressor which results in quicker cooling. In comparing the radiance of the suppressor mounts, it is clear that the uncoated suppressor (top) is hotter while the coated suppressor (bottom) is cooler.



Suppressor coated with Cerakote Heat Transfer Coating prior to firing.



Suppressor after firing 450 rounds in under 4 minutes, and water quenched.