

ECOAT SOLUTIONS

PRODUCT DATA SHEET

ECS 4410

HIGH TEMPERATURE THERMAL PROTECTION COATING

ECS 4410 - High Temperature Thermal Protection Coating is a high performance protective coating formulated to reduce radiated heat. ECS 4410 is extremely durable and provides best in class thermal protection at temperatures of up to 1600°F (871°C). ECS 4410 may be applied to almost any metal, composite, or semi-rigid plastic substrate. It is an easy to apply one-component formulation. ECS 4410 is solvent based, VOC exempt and environmentally friendly. It provides excellent corrosion resistance. ECS 4410 is designed for use on automotive components such as engine headers, engine manifolds, exhaust pipes, heat shields, exhaust mufflers and catalytic converters. It is also very effective on aircraft engine components.

Proudly manufactured in the USA.

Technical Data

Color	Opaque (Solid Tone)
Viscosity	20-23 sec. #2 Zahn
Percent of Solids (%)	65-75 ± 2
V.O.C	Exempt per CFR 51.1 / Regulation 8
RoHS	Compliant
REACH	Compliant
Halogens	None
Thermal Stability (cured)	>1600°F + (>871.1°C +)
Salt Spray ASTM B117	3500 hrs +
Conical Bond (1/8" Mandrel) (ASTM D522-93a)	Passed
Cross Cut Adhesion (ASTM D3359-02)	5B
Direct Impact (ASTM D2794-93)	130 lbs
Specific Gravity (ASTM D891-09)	1.04 ± 2%
Pencil Hardness (ASTM D3363)	9h (Ambient Cure)
Odor (liquid)	Slight Solvent
Odor (cured)	None

Drying and Coverage Rate

Average Applied Dry Film Thickness	20 to 25 microns
Estimated Coverage Rate (@ 20 microns)	1,425 ft ² (130 m ²) per gallon
Estimated Coverage Rate (@ 25 microns)	1,140 ft ² (105 m ²) per gallon
Ambient Cure (@ 75°F (23.8°C))	5 days
Forced Air Oven Cure (@ 350°F (176.6°C))	30 minutes

*Coating must be dry to touch prior to oven curing.

Key Performance Properties

- High performance single component coating.
- Extreme adhesion. Forms covalent bond to the substrate giving it an intrinsic bond to surfaces.
- Bonds to all metals, composites, semi-rigid plastics and many other substrate types.
- Excellent thermal protection.
- Unparalleled durability. Excellent chemical and abrasion resistance.
- Excellent anti-corrosion performance.
- Extremely high operating temperature.
- Thin application (0.4 to 1.0 mil / 10–25 micron dry film thickness).
- Easy to apply. Curable by ambient air (accelerated oven curing possible).
- RoHS and REACH compliant.

Common Applications

- Engine headers
- Engine manifolds
- Exhaust pipes
- Heat shields
- Exhaust mufflers
- Catalytic converters
- Aircraft engine mounts

Coated Exhaust Component



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