



## Alltrakote® Technical Data Sheet

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**PRODUCT DESCRIPTION:** Alltrakote® is a self-passivating corrosion resistant inorganic coating which can be clear or colored. The coating is environmentally friendly containing 0% VOC's, stable above 1000 F preventing high temperature oxidation, highly scratch resistant and is insoluble in water and all organic solvents, including all automotive fluids. The coating allows easy removal of fingerprints and graffiti on coated and cured substrates of carbon steel, stainless steel, aluminum and glass. Unlike other commercial coatings, Alltrakote contains no petrochemicals or fuel derivatives so that the cost of Alltrakote is not tied to the price of oil.

**PRODUCT NAME:** Alltrakote®  
**DATE:** April 24<sup>th</sup>, 2006

### PHYSICAL PROPERTIES:

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**SOLIDS BY WEIGHT:** 40-55%.  
**WEIGHT-PER-GALLON:** 11.5-12.0 lbs.  
**COVERAGE:** 600-800 Sq. Ft. per gallon per mil DFT  
**PACKAGE VISCOSITY @ 77°F:** Brookfield using spindle #2 at 5 or 6 rpm - 2,000 to 5,000 cP  
at 50 or 60 rpm - 200 to 700 cP

**VOC:** 0.  
**SHELF LIFE:** Closed containers - 1 yr. at RT, 6 months for other conditions not including unstirred, open containers

**FLASHPOINT:** None.  
**pH:** 10-12.

### APPLICATION:

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**METHOD:** Conventional coil coating, air or airless spraying, electrostatic air spraying or dip coating.  
**VISCOSITY:** As required.  
**COATING TEMPERATURE:** 35-100°F.  
**REDUCER:** None required, distilled water if desired.  
**PRETREATMENT/PRIMER:** Do not use. Apply Alltrakote® directly to clean bare surfaces.  
**MIXING INSTRUCTIONS:** Mix thoroughly with mechanical agitation.  
**WET FILM PER COAT:** 0.5-3.0 mils.  
**SUBSTRATE:** Carbon steel, stainless steel, aluminum and glass.  
**SUBSTRATE TEMPERATURE:** 70-200°F.  
**SUBSTRATE PREPARATION:** Must be free of organic and heavy metal contamination. Do not use any pretreatments or primers containing heavy metal compounds, organic compounds or any other rust-inhibitor to the surface prior to the application of Alltrakote®.

**CLEAN-UP:** Water or heated 3-5% caustic solution.

### CURE SCHEDULES:

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**TYPE OVEN:** Gas or Electric  
**PEAK METAL TEMPERATURE:** 450°F or greater.  
**TIME AT TEMPERATURE:** 10 seconds (minimum).

Additional Information: Agitate and mix well until no solids remain at the bottom of the container. Minimize air entrapment in the coating for best results. Spray Application- a blade mixer placed near the bottom of the container is a fast easy reliable mixing method. Dip Coating- a tank with eductor mixing and a standard weir circulation overflow or other methods which prevent air entrapment and removes air and flotation. Coil Coating- standard roll coat, print roller coat or spray coat apply.

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Note: Statements and methods described herein are based upon the best information and practices known to Diamond Star Coatings, LLC. However, procedures for application mentioned are suggestions only and are not to be construed as representation or warranties as to performance or result, nor does DSC, LLC warrant freedom from patent infringement in the use of any formula or process herein.



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### FILM PROPERTIES:

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**COLOR:** Black, clear & colors  
**GLOSS:** Flat to Glossy  
**EMISSIVITY:** 0.94-0.96.  
**HARDNESS:** On Mohs Hardness Scale (MHS), 6-8. (On MHS, pencil is 2).  
**DRY FILM PER COAT:** 0.25-1.5 mils.

### SPECIFICATION PERFORMANCE:

#### Adhesion

GM9071P - Tape Adhesion Test for Paint Finishes > 99% coating remaining.  
GM9508P - Chip Resistance of Coating Test ≥ 8.  
GM9525P - Thermal Shock Test for Paint Adhesion < 0.1 mm adhesive loss.

#### Chemical Resistance

ASTM B117 - Neutral Salt Spray Test No red rust after 1000 hours.  
Brake Fluid Immersion Test No coating softening, removal or blistering after 1 year exposure at RT.  
Gasoline Immersion Test No coating softening, removal or blistering after 1 year exposure at RT.  
GM9501P - Gasoline Dip Test for Painted Parts No coating softening, removal or blistering after 24 hour exposure.  
GM9509P - Solvent Rub Test ≥ 1, no change in color, adhesion, softening or swelling.  
GM9540P - Accelerated Corrosion Test  
Option X - Muffler/Tail Pipe Modification ≤ 5% face rust and ≤ 1 mm peelback after 80 cycles.  
(10 years of equivalent service)  
SAE Technical Paper SP-1614 (2001) No red rust, no perforation and maximum pit depth < 150 µm.

#### Exterior Exposure

SAEJ1960 Delta E < 2.0 after 6 weeks.

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