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# Supercoat S

## Fast-drying - Forms Flexible, Tough, Enamel-like Supercoat on Fe/Cr-Ni Metal Surfaces after One-time Bake-on

Supercoat S is solvent-based and allows easy application onto metals at room temperature due to its fast drying. The Supercoat S should be applied by air-spraying (for best results) or by dipping. Supercoat S can be diluted with Acetone for somewhat faster drying or with Ethyl Alcohol for somewhat slower drying. After applying and drying at room temperature, a one-time "bake-on" at 850-925 C for 30 minutes or more is required. The resulting coating is remarkably flexible and tough, protective, and electrical insulating.

### Key Attributes

#### Enamel-like Supercoat For Metals Containing Chromium and/or Nickel with Iron (Not for carbon-steel)

- Stainless (all varieties, including 304, 310, 316, 430, 439)
- Haynes Alloy 214 • Inconel 718 • "White" Cast Irons HC15 and HC28 • Ni-Hard Cast Iron
- H13 Tool Steel

#### Forms Remarkable, Fantastic, Tough Supercoat That Can Be Used To:

- Seal Surfaces with an Impervious layer • Provide flexible coating • Yield electrical insulating coating
- Allow Thermal Cycling & Air Quenching

### Ideal Uses

- Reduces/stops Gaseous Attack and Provides Corrosion Resistance
- Provides High Emissivity and Electrically Nonconducting Surface, Good from Ambient to 850 C
- Mufflers/Exhaust Components
- Gas Burners
- Protect Furnace Parts, etc.
- Base/primer Coat for Topcoating with Paintable Coatings, like BN

### Use Notes

1. Resuspend by shaking or rolling until mixing cylinders are heard and the paint is uniformly suspended.
2. Clean surfaces to be painted of any oils dirt, scale, etc. Light surface roughening can improve adherence.
3. For best results, apply a thin, uniform layer by air-spray onto the metal surface. Coating is fast drying with room temperature application. For small items a SPRA-TOOL with red nozzle works well from thepaintstore.com. For larger parts, use pressure-fed air sprayer (See our videos & Painting Instruction Guide). Dipping can also work to deposit a uniform layer.
4. One-time "Bake-on": Heat coated part to 850-925 C for 30 minutes to 1hr. to "set" Supercoat. Furnace cool to room temperature. Parts are now ready-to-use for thermal cycles from ambient to 850 C. Note: After heating to 850 C for 1/2 hour, coating is matte/brownish color. After heating to 950 C for 1/2 hour, coating is black and, if thick enough, glossy appearing.



### Specifications

Active Ingredient	Mixed oxides
Max Use Temperature after "Bake-on"	
Air/Inert/Vac	1562F / 850 C
Use Atmosphere	All
Fired Composition(Air@>850 C)	Mixed oxides
Liquid Carrier	Ethanol/Acetone
Binder Phase	Mixed Oxides
Brookfield Viscosity (cps)	110 @3/60
Specific Gravity	0.92
Color	Black
Shelf Life (months)	>12
Coverage (ft <sup>2</sup> /gal.)	100-400
H F R Ratings	2-3-0
Substrate Use	Metals
Other: Requires one-time "Bake-on" (after applying and drying) to 850-925 C for >= 30 minutes. Thickness typically can be varied from 0.2 to 2 mils (0.0002 to 0.002 inch) depending on initial dry layer thickness.	

### Sizes and colors

Product is black/dark-colored  
Standard Sizes: 1 gallon Nalgene container  
1 quart Nalgene container

### Safety Information

- Consult SDS before use.
- Avoid breathing of vapors.
- For Industrial use only.

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