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# Aluminum Oxide Traycoat Traycoat A Aerosol Brushable

## “Bulk” Solvent-Based Tray Coating of Aluminum Oxide (Al<sub>2</sub>O<sub>3</sub>)

Traycoat paints are barrier-separation coatings for powder metallurgy and vacuum sintering processes. They are designed for graphite as well as refractory metal or ceramic sintering trays and boats used to over 1500 C in hard vacuum.

Traycoat A Aerosol Brushable is a ready-to-use solvent-based paint.

### Key Attributes

- Maintains Consistent Carbon Contents of Sintered Parts
- Prevents Warping
- Extends Tray Lifetime
- Reaction-barrier Layer
- Easy-to-Use, Fast-Drying, Solvent Based

### Ideal Use

- Graphite Trays/Boats for Cobalt-bonded WC, TiC, TaC Parts
- Carbon Barrier/Separator Layer
- Reactive Refractory Metal Sintering

### Use Notes

1. Make sure that you need an Al<sub>2</sub>O<sub>3</sub> solvent-based tray coating.
2. Resuspend; can dilute with acetone (for faster drying) or ethanol (for slower drying).
3. Clean surfaces to be painted of any loose graphite/carbon dust, oils, dirt, scale, etc.
4. Apply one thin layer by brush or spray like ordinary house paint.
5. Allow to thoroughly dry at room temperature before use.

### Safety Information

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

### ALUMINUM OXIDE TRAYCOAT SELECTION

When processing HIGH COBALT PARTS (to 27% Co), Al<sub>2</sub>O<sub>3</sub> provides an effective carbon barrier. The Al<sub>2</sub>O<sub>3</sub> also can be used for any Cobalt level as well as for refractory metals and non-Cobalt-containing parts. The Al<sub>2</sub>O<sub>3</sub> coatings often allow several thermal cycles without reapplying more coating.

After applying Al<sub>2</sub>O<sub>3</sub>-based Traycoats, a bed of coarse-grained Al<sub>2</sub>O<sub>3</sub> grit can be spread on top to further prevent sticking and lead to longer-term use of the Traycoat before reapplying.

For LOW COBALT PARTS (to 8% Co) or Rare-Earth-Magnets alloys, see our Titanium Nitride Traycoat paints.

### Specifications

Active Ingredient	Al <sub>2</sub> O <sub>3</sub>
Max Use Temperature	Vac 2732 F / 1500 C Air/Inert 3272 F / 1800 C
Use Atmosphere	All
Fired Composition	98% Al <sub>2</sub> O <sub>3</sub>
Liquid Carrier	Ethanol/Acetone
Binder Phase	Magnesium Silicate
Brookfield Viscosity (cps)	320-600 @3/60
Specific Gravity	1.3
Color	White
Shelf Life (months)	>12
Coverage (ft <sup>2</sup> /gal.)	100-400
H F R Ratings	1-3-0
Substrate Use	All
Other:	Nearly water insoluble after drying

### Sizes and colors

Traycoat A Aerosol Brushable is white.  
Standard Size: 1gallon wide-mouth  
Nalgene container

### CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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