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Titanium Nitride Traycoat Traycoat TW

High Purity Titanium Nitride (TiN), Water-Based Tray Coating

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 TW is a ready-to-use water-based paint.

Key Attributes

- Maintains Consistent Carbon Contents of Sintered Parts
- Prevents Warping
- Extends Tray Lifetime
- Reaction-barrier Layer
- Applied Like House Paint
- Safe, Water-Based, No VOC's

Ideal Use

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

Use Notes

1. Make sure that you need a TiN water-based tray coating.
2. Resuspend; can dilute with water at 10% if desired.
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.

TITANIUM NITRIDE TRAYCOAT SELECTION

When processing LOW COBALT PARTS (to 8% Co), TiN provides the most effective carbon barrier. TiN is also ideal for Rare-Earth Alloys and is good with Molybdenum trays often used with them. The TiN also can be used for refractory metals and non-Co-containing parts. The TiN coatings are typically re-applied after each cycle.

For HIGH COBALT PARTS, see our Aluminum Oxide Traycoat paints, which also can be used for any level of Cobalt contents.

Specifications

Active Ingredient	TiN
Max Use Temperature	Inert 3452 F / 1900 C Vac 2912F / 1600 C Air - Not over 662 F / 350 C
Use Atmosphere	Inert/Vac
Fired Composition	97%TiN
Liquid Carrier	Water
Binder Phase	Al ₂ O ₃
Brookfield Viscosity (cps)	950-1600 @3/60
Specific Gravity	1.7
Color	Gold-to-Brown
Shelf Life (months)	>12
Coverage (ft ² /gal)	100 to 400
Coating pH	2-3
H F R Ratings	1-0-0
Substrate Use	All

Sizes and colors

Traycoat TW is a gold-to-brown colored paint.
 Standard Size: 1 gallon wide-mouth Nalgene container.

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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