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Type YK

Highest Purity Yttrium Oxide (Y₂O₃) Coating

Type YK is a relatively-soft, low-viscosity, non-aqueous-based washcoat-type of Yttrium Oxide (Y₂O₃) coating that provides very high purity (99.99% pure) Y₂O₃ which is usable in vacuum and inert atmospheres to 2000 C (3632 F). This coating should NOT be used in air atmospheres (use Y-Aerosol there). Type YK gives **minimal outgassing**, complete by 350 C (662F).

Key Attributes

- Provides, in a solvent-based paint, the great properties of Y₂O₃ – low electrical conductivity; low thermal conductivity; superior high-temperature thermodynamic stability with molten metals, glasses, slags, and salts; inert barrier for reactions, diffusion bonding, brazing etc.
- Applies like house paints
- Completely outgassed at low temperature -- ideal for mold coating
- Great with highly reactive molten metals

Ideal Use

- Graphite crucibles and molds
- Anti-stick with diffusion bonding
- Superplastic forming lubricant

Use Notes

1. Resuspend if needed. Can dilute with Ethanol or with YK Binder/Thinner needed.
2. Clean surfaces to be painted of any oils dirt, scale, etc.
3. Apply 1-3 layers by brush or spray like ordinary house paint, drying after each layer
4. Allow to dry thoroughly at room temperature before use.

Safety Information

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



Specifications

Active Ingredient	Y ₂ O ₃
Max Use Temperature	Inert, Vac (no C) 3632 F / 2000 C Vac (with C present) 2732 F / 1500 C Air = NOT RECOMMENDED
Use Atmosphere	Vacuum or Inert
Fired Composition	>99% Y ₂ O ₃
Liquid Carrier	Ethanol/Ethyl Acetoacetate
Binder Phase	Cellulosic
Brookfield Viscosity (cps)	80-220 @2/60
Specific Gravity	1.4
Color	White
Shelf Life (months)	>12
Coverage (ft ² /gal)	100 to 400
H F R Ratings	1-2-0
Substrate Use	All

Sizes and colors

Type YK is a white colored paint.

Standard Size: 1 gallon Nalgene container

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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