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YK Binder

Solvent-based Binder Liquid For Creating Your Own Paint with most any material ... for use in vacuum or inert environments

YK Binder is a nonaqueous-based binder liquid that is used for washcoatings such as yttria. The term "washcoating" is indicative of a low hardness coating similar to a whitewash house paint. Coatings produced with this binder liquid will always have low hardness on drying and have low water resistance. The binder also has a relatively low ability to suspend solids and generally produces low viscosity coatings with most refractory powders. Other properties – long shelf life of over 12 months; flash point of 55 F; use ONLY in inert or vacuum atmospheres. YK Binder/Thinner is called a "Thinner" sometimes since it can be used to thin our Type YK paint to achieve any consistency desired. Binder contains NO yttrium oxide.

Key Attributes

- Low water-resistance on ambient drying
- Low suspendability of 'filler' powders
- Forms low hardness (i.e., soft) coatings
- Good in vacuum/inert atmospheres only, NOT for air atmospheres
- Outgassing (H_2O , CO_x) complete by 350 C – thus good for mold coatings
- Dilutable with ethanol
- Safe, easy-to-use
- No cure needed

Ideal Uses

- Binder/Suspender

Possible Fillers

- Compatible with most everything
- Ideal for water-sensitive/reactive materials
- Consider eutectics that form low-melting situations

Use Notes

1. Add refractory 'filler' (<10 microns preferred)
2. Start at 50wt.% powder. Mix by rolling/shaking.
3. If too thick, add ethanol; if too thin, add powder.
4. Re-mix by rolling or shaking.

After making paint above, clean substrate, apply paint, dry (with no cure needed), and place into use.



Specifications

Active Ingredients	Cellulosic
Max Use Temperature	2000 C
Use Atmosphere	Vacuum/Inert
Fired Composition and Binder Phase	100% Glassy Carbon
Hardness	Low
Liquid Carrier	Ethanol/Ethyl-Acetoacetate
Water Resistance	Low
Ability to Suspend Solids	Low
Brookfield Viscosity (cps)	40 @1/60
Specific Gravity	0.88
Shelf Life (months)	>12
Coating pH	Not applicable
H F R Ratings	1-2-0
Substrate Use	All
% Volatiles	97

Safety Information

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

Sizes and colors

YK Binder is a clear liquid.
Standard Size: 1 gallon Nalgene container.

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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