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YAG BondCoat

Phosphate-Bonded, Tough, Yttrium Aluminate Coating

YAG BondCoat is a water-based, P_2O_5 -bonded (nearly 50 wt.% P_2O_5) $3Y_2O_3 \cdot 5Al_2O_3$ coating. The phosphate bonding provides erosion resistance from 800-1400 C. This coating works best on Alumina and ceramic substrates, but also is usable with some moderate expansion metals.

Key Attributes

- Good abrasion/erosion resistance at high temperatures
- Good chemical resistance
- Upper use temperature of 1400 C in all atmospheres/conditions
- Water-based, easy to use and cleanup

Ideal Use

- Molten reactive metal processing/transport
- High-temperature processing
- Whenever more erosion resistance than Zypcoat YAG is desired

Use Notes

1. Resuspend if needed.
2. Use full strength, or dilute as desired with water or YAG Binder.
3. Clean surfaces to be painted of any oils, dirt, scale, etc.
4. Apply 1-3 layers by brush, dip, or spray like ordinary house paint, drying after each layer.
5. Allow to thoroughly dry before use.

Safety Information

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



Specifications

Active Ingredient	Yttrium Aluminate (YAG, $3Y_2O_3 \cdot 5Al_2O_3$)
Max Use Temperature	1400 C with most all conditions
Use Atmosphere	All ... but vacuum with Carbon present not recommended
Fired Composition	YAG - P_2O_5
Liquid Carrier	Water
Binder Phase	Phosphates
Brookfield Viscosity (cps)	570-1100@3/60
Specific Gravity	1.69
Color	White
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

YAG BondCoat is a white paint.
Standard size: 1 gallon wide-mouth Nalgene
1 quart wide-mouth Nalgene

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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