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Type ZO Blackbody

Calcia (4 wt.%) - Stabilized Zirconia Water-Based Coating Modified For High Emissivity

Type ZO Blackbody is a high-emissivity version of Type ZO. This water-based paint of 4% CaO Stabilized ZrO₂ is good for coating all substrates that are compatible with pH-Acidic (like lemon juice) conditions. The paint is usable to 1800 C (3272 F) in all atmospheres.

Key Attributes

- High Emissivity Coating ("HEC"), estimated >0.9 with proven use to >1700 C
- >92% Zirconium Oxide on heating above 600 C
- Resistant to Many Molten Metals and Alloys
- Very Low Thermal Conductivity
- Low Electrical Conductivity
- Applied Like House Paint
- Safe, Water-Based, No VOC's

Ideal Use

- Whenever a high-emissivity/blackbody coating is required
- Providing faster heatup/cooldown times for furnaces, saving energy and enabling faster throughput (increased production)
- Improves temperature uniformity in furnaces, allowing more evenly treated parts
- Forming highly refractory Zirconia-based coating on surfaces

Use Notes

1. Resuspend if needed. Can dilute with water.
2. Clean surfaces to be painted of any oils dirt, scale, etc.
3. Apply one thin layer by brush or spray like ordinary house paint. Apply additional layers if needed, after drying prior layer.
4. Allow to thoroughly dry at room temperature before use.

Safety Information

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



Specifications

Active Ingredients	ZrO ₂ (with 4 wt% CaO), MnO ₂
Max Use Temperature	Air/Inert/Vac 1800 C (3272 F)
Use Atmosphere	All
Fired Composition	>92% ZrO ₂
Liquid Carrier	Water
Binder Phase	Al ₂ O ₃
Brookfield Viscosity	2700-3700 cps@4/60
Specific Gravity	2.25
Color	Gray*
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

Other:

*Note "Blackbody" does not refer to visual color of the coating.

Sizes and colors

Type ZO is a Gray paint.

Standard Size: 1 gallon wide-mouth pail

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL

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