



120 Valley Court
Oak Ridge, TN 37830
Ph: 865-482-5717
FAX: 865-482-1281
zypcoatings.com

Z-Primercoat

Water-Based, Light Syrup-Appearing Liquid for Sealing Ceramic Surfaces Alkaline pH Binder Liquid For Creating Your Own Paint

This water-based, clear light-syrup-appearing liquid is designed for sealing the surfaces of porous ceramics and boards. By merely painting or swabbing this material onto the ceramic, the surfaces become much more amenable to topcoating with boron nitride coatings such as pH-Acidic Boron Nitride Lubriccoat Blue which would otherwise react with residual Bone Ash and red mud. By using the Z-Primercoat, spalling and mud-cracking can be prevented.

Key Attributes

- Seals the surface dusts/fibers/contaminants/porosity (not impervious, however)
- Acts as a 'primer' coating, allowing topcoating with all BN paints, whether pH-Acidic or pH-Alkaline
- Water-resistant after thorough drying [150 C for complete water insolubility]
- Forms tough silicate bond
- Moderate Suspendability of 'filler' powders
- Forms high hardness layer and coatings
- Good in all atmospheres, including air
- Minimal outgassing (H₂O)-- complete by 150 C
- Safe, water-based
- No cure needed

Ideal Uses

- Sealer for "used" hot-top billet casting tables
- Rigidizer
- Infiltrant
- Binder/Suspender

Possible Fillers

- Materials compatible with pH-Alkaline/Basic liquids
- Consider eutectics

Use Notes

As a primer/sealer: merely brush/swab on a layer of Z-Primercoat and let it get dry-to-the-touch.

For "Making Your Own Coating":

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

Other Notes: This sealant is not vacuum-tight/impervious. Not required for sealing 'new' casting tables without dust from Bone Ash or Red Mud. Enables 'old' casting tables with these materials to be readily coated with any (acidic or alkaline) Boron Nitride paint.



Specifications

Active Ingredients	>99% K ₂ O-SiO ₂
Max Use Temperature	900 C
Use Atmosphere	All
Fired Composition	K ₂ SiO ₃
Binder Phase	Potassium Silicate
Hardness	High
Liquid Carrier	Water
Water Resistance	High
Ability to Suspend Solids	Moderate
Brookfield Viscosity (cps)	90 @2/60
Specific Gravity	1.2
Shelf Life (months)	>12
Coating pH	9-10
H F R Ratings	1-0-0
Substrate Use	All
% Volatiles	76

Safety Information

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

Sizes and colors

Z-Primercoat is a clear liquid.
Standard Size: wide-mouth 1 gallon pail.

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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