



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

**Zypcoat® FZM**

## Fused Zirconia-Mullite Very-High-Temperature, High-Performance Coating

Zypcoat FZM is a water-based Fused Zirconia-Mullite coating consisting of Aluminum Oxide (Al<sub>2</sub>O<sub>3</sub>), Zirconium Oxide (ZrO<sub>2</sub>), and Silicon Oxide (SiO<sub>2</sub>), AZS. The coating is designed to have outgassing completed by about 600 C, forming 100% AZS which reportedly melts at 1750 C.

The refractory FZM is known for its use in steel, glass, and aluminum processing refractories – nonwetting with molten glass, metals and slags with minimal corrosion. Thus, Zypcoat FZM should be applicable as a protective layer for FZM/AZS and other refractories used in challenging/harsh environments.

### Key Attributes

- FZM provides non-reactivity/corrosion resistance with many materials
- Use temperature expected to be over 1650 C in all atmospheres

### Ideal Use

- Very-high-temperature use areas
- Stopping reactions/interactions with other refractory substrates
- Barrier coating to prevent diffusion, reactions, and sticking of parts during heat treating

### Use Notes

1. Re-suspend if needed.
2. Use full strength, or dilute as desired
3. Clean surfaces to be painted of any oils, dirt, scale, etc.
4. Apply a thin layer by brush.
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	Al <sub>2</sub> O <sub>3</sub> – ZrO <sub>2</sub> – SiO <sub>2</sub> (AZS, also called Zirconia-Mullite)
Max Use Temperature with All Atmospheres	>1650 C (> 3002 F)
Fired Composition	100% AZS
Liquid Carrier	Water
Binder Phase	Proprietary
Brookfield Viscosity (cps)	3740 @ 4/60
Specific Gravity	1.75
Color	Cream/Beige
Shelf Life (months)	>12
Coverage (ft <sup>2</sup> /gal)	100 to 400
Coating pH	2-3
H-F-R Ratings	1-0-0
Substrate Use	Ceramic refractory

### Sizes and Colors

Zypcoat FZM is a cream/beige-colored paint.

Standard Sizes: 1gallon pail

### CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

ZYP Coatings, Inc. (ZYP) makes no warranties, express or implied, including the warranty of merchantability or fitness for a particular service. Product is for industrial/commercial use only. Users should determine suitability for their use. In no event will ZYP be liable for any direct, indirect, incidental, special or consequential damages or losses including, but not limited to loss of profits, in any way related to this product regardless of the legal theory asserted.