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Zypcoat MAO

Magnesium Aluminum Oxide Coating

Zypcoat MAO is a water-based Magnesium Aluminum Oxide (MAO) coating that is non-reactive with molten aluminum and aluminum-based alloys as well as many other nonferrous and ferrous metals and alloys. Zypcoat MAO has good abrasion resistance as well as chemical resistance along with a very high use temperature (> 1500 C). Also, the coating is a 100% pure phase – binder and filler with the same Mg-Al-O stable phase composition. As a barrier layer to prevent reactions, Zypcoat MAO can be used to stop sticking with stacked metal plates during heat treating. This coating works equally well on ceramic and metal substrates.

Key Attributes

- Non-reactive with molten nonferrous/ferrous metals/alloys
- Good abrasion resistance and chemical resistance at high temperatures
- Use temperature of over 1500 C in all atmospheres
- Water-based, easy to use and cleanup

Ideal Use

- Molten metal processing/transport
- Applications that require temperatures greater than typical aluminum processing
- Barrier coating to prevent diffusion, reactions, and sticking of parts during heat treating
- Materials requiring zero Boron contamination (aerospace/nuclear areas)

Use Notes

1. Re-suspend if needed.
2. Use full strength, or dilute as desired with water.
3. Clean surfaces 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. Curing the coating at 125-150 C (260-300 F) for 30 minutes is recommended.

Safety Information

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



Specifications

Active Ingredient	Magnesium Aluminum Oxide, MgO-Al ₂ O ₃
Max Use Temperature	>1500 C
Use Atmosphere	All
Fired Composition	100% Mg-Al-O
Liquid Carrier	Water
Binder Phase	MgO-Al ₂ O ₃
Active Ingredient Level	Fully Loaded
Brookfield Viscosity (cps)	5500 @4/60
Specific Gravity	1.5
Color	White
Shelf Life (months)	>12
Coverage (ft ² /gal)	100 to 400
Coating pH	3-4
H F R Ratings	1-0-0
Substrate Use	All

Note: Curing the coating at 125-150 C (260-300 F) for 30 minutes is recommended.

Sizes and colors

Zypcoat MAO is a white colored paint.

Standard Size: 1 gallon pail
 Also available in 5 gallon pail upon request.

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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