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RefClay Y

Water-based Refractory Clay based on Yttrium Oxide and usable to 1400 C

RefClay Y is a ready-to-use, water-based, Yttria (Y_2O_3) refractory claylike material that can be press molded to form shapes and then fired to high density at 1400 C.

Key Attributes

- Based on highly-stable refractory, Yttrium Oxide
- Can be press-formed with silicone or plaster press-molds to most any shape
- Firing to 1400 C in air forms tough, dense body
- Water-based, safe, and easy to use and cleanup
- Contains no Refractory Ceramic Fiber

Ideal Use

- Forming stable refractory parts based on Yttrium Oxide
- Making electrical and thermal insulating ceramic shapes by merely press forming

Use Notes

1. Remove appropriate amount from container.
2. Trowel/spatulate into silicone or plaster press-mold of the desired shape.
3. Place onto "dental" lab vibrator and vibrate into the mold cavities, first on low and then on higher setting.
4. Remove excess clay by scraping top of part with spatula, trowel, or putty knife; tamp the mold lightly to even out the surface further.
5. Thoroughly dry at room temperature, preferably overnight, while in the mold.
6. Place into lab dryer at 60 C for an hour (or better, for several hours), remove from the mold, dry for 1-2 additional hours. Note that the dried part is rather fragile at this point, so cast/dried pieces should be handled with care.
7. Place into furnace to fire to 1400 C, with ½ hr "soak".

NOTE: this yields highly dense parts with good strength after firing; shrinkage is around 50%.

Safety Information

- Consult SDS before use.
- For Industrial Use only.



Specifications

Active Ingredient	Yttrium Oxide – 1% Zirconium Oxide	
Max Use Temperature with	All Atmospheres	1400 C (2552 F)
Fired Composition	>90% Y_2O_3 - ZrO_2	
Liquid Carrier	Water	
Binder Phase	Proprietary	
Consistency	Claylike, easily spatulated and press-molded	
Color	White	
Shelf Life (months)	>12	
Coating pH	Near 8	
H F R Ratings	1-0-0	

Sizes and colors

RefClay Y is a white colored refractory claylike material

Standard Sizes: 1 qt. or 8 oz epoxy-lined can

CAUTION: DO NOT CONTACT WET COATINGS WITH MOLTEN METAL.

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