

PC[®] 80M MORTAR

Product Datasheet

1. Description and Area of Application

PC[®] 80M Mortar is a two-component, inorganic slurry formed from glass powder and fillers (Component 1) and modified silica dispersion (Component 2). It can be used for bore coating or forming high temperature (HT) reinforced FOAMGLAS[®] insulation shapes.

2. Field Application

Always read and understand information contained within product datasheets and safety datasheets before attempting to use this product. If you have questions regarding fitness of use of this product for an application, consult Pittsburgh Corning LLC.

Substrate Preparation

Surfaces must be free of moisture, loose scale and rust, dust, oil and grease. Check substrate surfaces for flatness, as adhesive cannot make up for poor surface uniformity.

Environmental Considerations

Temperature of adhesive, substrate and the ambient temperature will affect working time, cure and application rate.

Mixing Guidelines

For best results always have the substrate ready for use prior to mixing.

For use as a bore coating, the powder to liquid mixing ratio is 100 : 40 to 100 : 30 by weight. For use as high temperature (HT) reinforcement, the powder to liquid mixing ratio is 100 : 30 to 100 : 25 by weight.

Using a spiral paint mixing paddle or mud-type mixing paddle, mix the powder and liquid in a container until a homogeneous mixture is obtained. DO NOT attempt to supplement or extend with Portland cement, water, or other materials. Best results are achieved when mixing temperature is 25 °C (77 °F). Properly mixed mortar will have a creamy and non-sagging appearance, and build to a wet film thickness of at least 7 mm (approximately ¼ in.). Once adhesive sets, it cannot be recovered.

Cellular Glass Application Guidelines for Bore Coating

Prior to application confirm the insulation is properly sized to accommodate the bore coating. In general, insulation intended for hot processes should be loose fitting. Apply to bore with brush or other suitable applicator. Best results are achieved using a disposable bristle type brush. Alternatively,



slurry may be applied using a Putzmeister Sprayboy P12 or similar spray equipment. Cells do not need to be completely filled as a continuous coating is not needed. Remove any lumps or excess adhesive from all surfaces before adhesive sets.

Cellular Glass Application Guidelines for High Temperature (HT) Reinforcement

When PC[®] 80M mortar is used as HT reinforcement (e.g., PC[®] 700K system), PC[®] 150 mesh is used as a reinforcing fabric.

Prior to mixing the mortar, cut PC[®] 150 mesh to fit the insulation surfaces to be coated.

While the high temperature (HT) reinforcement is generally applied to the exterior surface of the insulation, some applications require application on both exterior and interior insulation surfaces. Consult the project specification to verify if the interior surface is also specified to be coated.

Apply the PC[®] 80M mortar with a brush or other suitable applicator and immediately embed the PC[®] 150 mesh into the freshly applied mortar. Smooth mortar using the applicator, ensuring the fabric is completely covered by the mortar. Apply additional mortar as needed to completely cover the fabric. Allow mortar to cure for at least three hours before use.

Clean up and Disposal

Remove mortar from tools and containers with water before it sets. Set mortar must be mechanically removed. Powder should be mixed with liquid and allowed to solidify before discarding.

Dispose of solidified product in accordance with local, state and federal regulations.

3. Type of Delivery and Storage

- Component 1: 25 kg (55.1 lbs.) in bags of glass powder and filler.
- Component 2: 5.75 kg (12.7 lbs.) bottles.
- Store in a cool, dry area in closed containers.
- Keep from freezing during storage or shipment.
- Consult Safety Data Sheet for additional storage and handling information.

4. Coverage

- The working time and quantity of product used may vary 30 to 50% depending on cell size, application method, and temperature. The suggested quantities are offered as a guide to the user and should not be relied upon as precise values.
- Pipe and Equipment Insulation Bore Coating: 0.9 kg / m² (18 lb / 100 ft²) ≈ 0.6 mm (24 mil) coating thickness
- HT Reinforced Coating: 2 to 2.5 kg / m² (41 to 51 lb / 100 ft²) ≈ 1.2 to 1.5 mm (47 to 59 mil) coating thickness
- The coverage rates shown are based on the use of PC[®] 80M Mortar for industrial and commercial insulation applications. Coverage and product usage rates may be different for architectural applications.
- All figures exclude losses.

5. Typical Properties

PROPERTY ^A	METHOD	SI	ENGLISH
COLOR		Component 1: Light grey powder Component 2: Clear liquid	
DENSITY			
POWDER		1.09 kg / L	68 lb / ft ³
LIQUID		1.31 kg / L	82 lb / ft ³
MIXED		1.46 kg / L	91 lb / ft ³
CURED		1.09 kg / L	68 lb / ft ³
COMBUSTIBILITY		Incombustible, wet or dry	
MELTING POINT		1450 °C	2642 °F
APPLICATION TEMPERATURE			
MATERIAL		25 ± 20 °C	77 ± 36 °F
SERVICE TEMPERATURE			
MAXIMUM		320 °C	608 °F
MINIMUM		-196 °C	-320 °F
WORKING TIME		60 to 120 minutes @ material temperature of 21 to 27 °C (70 to 80 °F)	
CURE TIME			
SET		3 hours @ 25 °C (77 °F)	
DEHYDRATION TIME		days	

^A Properties are subject to change. Consult Pittsburgh Corning LLC.

Certified to meet stainless steel service requirements of MIL-I-24244, ASTM C795, and NRC Regulatory Guide 1.36.

6. Limitations

- DO NOT use for permanent bonding of FOAMGLAS® insulation to other materials without first contacting Pittsburgh Corning LLC for more information.
- Adhesive is not a vapor barrier. Some coatings may blister over cured product.

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