

# POLYGLASS® PMMA RESIN

## PMMA MEMBRANE RESIN

### PRODUCT DESCRIPTION

Polyglass PMMA Resin is a high performance two-component, fast-curing, poly methyl-methacrylate (PMMA) resin used in roofing and waterproofing membranes. Polyglass PMMA liquid applied resins are simple and easy to use and can conform to even the most complicated conditions and details. Polyglass PMMA Resin handles normal building movement and is a low maintenance alternative to traditional waterproofing.

### WHERE TO USE

- May be used for a variety of new construction, refurbishment, recovery roofing and waterproofing applications.
- Polyglass PMMA Resin is combined with Catalyst and Polyglass PMMA Polyester Reinforcement to form a waterproofing membrane.
- Pedestrian decks
- Parking structures

### FEATURES AND BENEFITS

- Monolithic
- Self-flashing
- Self-adhering reinforced membrane.
- Provides some resistance to early rain exposure.
- Extends the useful life of the roof.
- UV resistant
- Offers high tensile strength and elongation.
- Resistant to dirt pick up and is fungal and algal resistant.
- Low VOC 1.1 g/l
- Non-flammable.
- Easy application
- Low maintenance
- Cold applied
- Fast curing
- Minimal disruption
- Seamless
- Flexible
- Durable
- Root resistant

### SUITABLE SUBSTRATES

- Existing or new roofing systems
  - Polymer modified roof membranes (modified bitumen)
  - Metal roof systems
  - Approved single-ply membranes
- Concrete
- Exterior grade plywood
- Cement board
- Steel
- Masonry

Primers or special precautions may be required. Contact Polyglass Technical Services for specific applications.



### PACKAGING

- Metal Pails: 55 pounds (25 kg)

### COLORS

- White (RAL 9010)

### POLYGLASS PMMA RESIN SYSTEM COMPATIBLE COMPONENTS

- Polyglass PMMA Catalyst Powder
- Polyglass PMMA Polyester Reinforcement
- Polyglass PMMA Flexible Primer
- Polyglass PMMA Concrete/Wood Primer
- Polyglass PMMA Metal Primer
- Polyglass PMMA Flashing
- Polyglass PMMA Reinforced Flashing
- Polyglass PMMA Cleaner
- Polyglass PMMA LTS Surface Finish



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### TYPICAL PHYSICAL PROPERTIES

PROPERTY	TYPICAL VALUE	TEST METHOD
Thickness(avg) @ 0.31 kg/ft <sup>2</sup> coverage rate	≥ 90 mils	ASTM D751 /D5147
Weight (min per 100 ft <sup>2</sup> of coverage)	68 lbs	
Peak Load (avg) @ 73°F	70 lb. f/in	ASTM D5147
Elongation at Peak Load (avg) @ 73°F	≥ 35%	ASTM D5147
Elongation at Peak Load (avg) @ 73°F	≥ 35%	ASTM D412
Shore A Hardness (avg)	≥ 70 ASTM	D2240
Water Absorption, Method I (24h @ 73°F)	0.8%	ASTM D570
Water Absorption, Method II (48h @ 122°F)	1.2%	ASTM D570
Low temperature flexibility @ 0°F	PASS	ASTM D5147
Dimensional Stability (max)	0.15%	ASTM D5147
Color	Light Grey or White	
Physical state	Cures to solid	
Min thickness (110 Polyester)	90 mils	ASTM D751 or D5147
Tensile strength @ break	> 60 lbs/in	ASTM D5147/D4073
Elongation	> 49%	ASTM D751
Tear resistance	> 7 lbs	ASTM D751
Water vapor transmission	0.45 Perms	ASTM E96
Water absorption	< 1.5%	ASTM D471
Static Puncture	≥ 30	ASTM D5602
Usage time *	15 minutes	
Rainproof after*	30 minutes	
Solid to walk on after*	1 hour	
Solid to drive on with air rubber tires after*	3 hours	
Overburden may be applied after*	3 hours	
Completely hardened after*	3 hours	
Solid Content	100%	
Solvent Content	0%	

\*all times are approximate and depend upon wind, humidity and temperature.

### THICKNESS AND RECOMMENDED YIELD

Membrane Coverage Rate (approximate)

Smooth substrates: 0.51 lb/ft<sup>2</sup> (2.5 kg/m<sup>2</sup>)

Normal substrates: 0.68 lb/ft<sup>2</sup> (3.3 kg/m<sup>2</sup>)

Fine grained substrates: 0.79 lb/ft<sup>2</sup> (3.8 kg/m<sup>2</sup>)

Rough substrates: 0.88 lb/ft<sup>2</sup> (4.3 kg/m<sup>2</sup>)

Gross yield: 22.05 lb (10 kg) unit: ±32.5 ft<sup>2</sup> (3.0 m<sup>2</sup>) @ 3.3 kg/m<sup>2</sup>

Gross yield: 55.11 lb (25 kg) unit: ±81.5 ft<sup>2</sup> (7.5 m<sup>2</sup>) @ 3.3 kg/m<sup>2</sup>

See recommendations for specific applications. Yields will vary depending upon system selected and the smoothness and absorbency of substrate.



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### APPLICATION INSTRUCTIONS

#### Surface Preparation:

All substrates must be clean, dry, free of oil, grease, curing compounds, release agents, laitance, gross irregularities, loose, unsound or foreign material such as moss, algae growth, dirt, ice, snow, water or any other condition that would be detrimental to adhesion of resin to the substrate. Mask perimeter and top edge of the area to be primed and flashed to provide clean lines and prevent over-painting of resins. Remove and re-apply masking before resin cures and as required between coats. Apply Polyglass PMMA primer to substrate as required.

Contact Polyglass Technical Department for recommendations regarding specific applications.

#### Application:

Thoroughly mix the entire drum of resin for 2–3 minutes. Remix before each use, and prior to pouring off resin into a second container if batch mixing. Catalyze only the amount of material that can be used within 15–20 minutes. Add pre-measured catalyst to resin component and stir for 2 minutes using a slow-speed mechanical agitator or stirring stick.

Catalyst Required Per 2.20 lb (1 kg) of Resin Used					
4% Catalyst 37°F to 50°F (3°C to 10°C)		3% Catalyst 50°F to 68°F (10°C to 20°C)		2% Catalyst 68°F to 95°F (20°C to 35°C)	
oz	lb	oz	lb	oz	lb
1.41	0.088	1.05	0.066	0.70	0.044

- **Step 1:** After mixing, apply resin to substrate at a rate of 0.31 to 0.68 lb/ft<sup>2</sup> (1.5 to 3.3 kg/m<sup>2</sup>) using approved rollers, brushes or notched squeegee. The Resin should be spread evenly onto the surface.
- **Step 2:** Roll Polyglass PMMA Polyester reinforcement directly into the resin, avoiding any folds and wrinkles. Use a roller to work the resin into the Polyester, saturating from the bottom up. The Polyester should darken in appearance, with no white spots showing. (White spots are indications of unsaturated Polyester or lack of adhesion.) When required peel back Polyester and apply additional resin onto the substrate, then slowly roll the Polyester back into the resin, using care to remove any air pockets. It is important to correct these faults before the resin cures, or additional repairs may be required later.
- **Step 3:** Apply an even coat of resin over top of the in-place Polyester at a rate of 0.20 lb/ft<sup>2</sup> (1.0 kg/m<sup>2</sup>) using Polyglass approved rollers. Use caution not to spread resin too thin.

This product is recommended for use at substrate and ambient temperatures between 37°F (3°C) and 95°F (35°C).

Polyglass offers a wide variety of optional surfacing treatments for aesthetic, anti-slip or mechanical wear. See individual system specifications for specific guidelines regarding application of topcoats and/or surfacing.

#### Working Times (at 68°F (20°C)):

- Pot Life: approx. 20 to 30 minutes
- Rainproof: approx. 30 minutes
- Next Coat: approx. 1 hour
- Fully Cured: approx. 3 hours

The times noted above are approximate, provided as a guideline, and may vary. Actual set times and cure should be established in the field based on actual field conditions.

#### Shelf Life:

Shelf life is 6 months from the ship date when sealed, unmixed and with proper storage.

#### Limitations:

- Once the resin is mixed with catalyst the product must be used immediately.
- Not approved for use with potable water.
- Do not thin.
- Do not apply to frozen or wet surfaces.
- Do not apply on exterior surfaces when there is a threat of inclement weather.
- Requires adequate ventilation.

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### Handling:

Keep away from open fire, flame or any ignition source. Vapors may form explosive mixture with air. Avoid skin and eye contact with this material. Avoid breathing fumes. Do not eat, drink or smoke in area of application.

Refer to product Safety Data Sheet (SDS) for additional information pertaining to this product and prior to use or handling.

Always store in cool and dry location. Do not store in direct sunlight or in temperatures below 32°F (0°C) or above 77°F (25°C). Approximate shelf life is 6 months.

When work is interrupted or completed, tools must be thoroughly cleaned with Polyglass PMMA Cleaner before the resin hardens.

Catalyzed and cured resin may be disposed of in standard landfills. Uncured resin is considered a hazardous material and must be handled as such, in accordance with local, state and federal regulations.

Workers should wear appropriate clothing to protect from accidental skin contact. When mixing or applying this product workers must use butyl rubber or nitrile gloves. Safety glasses with side shields are required for eye protection.

In enclosed spaces, use local exhaust ventilation to maintain worker exposure below TLV. If the airborne concentration poses a health hazard, become irritating or exceeds recommended limits, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements under 29 CFR 1910.134. The specific type of respirator will depend on the airborne concentrations. A filtering face piece or dusk mask is not acceptable for use with this product if TLV filtering levels have been exceeded.

**For Professional Use Only** - Keep out of the reach of children.

### MANUFACTURING FACILITIES

- Fernley, NV
- Hazleton, PA
- Phoenix, AZ
- Waco, TX
- Winter Haven, FL

### CORPORATE HEADQUARTERS

Polyglass U.S.A., Inc.  
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(954) 233-1330

Customer Service: (800) 222-9782

Technical Service: (866) 794-9659

**Questions?** [technical@polyglass.com](mailto:technical@polyglass.com)

**Product Disclaimer:** Unless otherwise incorporated into or part of a supplemental manufacturer's warranty, Polyglass warrants its product(s) against manufacturing defects that result in the material not complying with product specifications for a period of 12 months.

Refer to safety data sheet (SDS) for specific data and handling of our products. All data furnished refers to standard production and is given in good faith within the applicable manufacturing and testing tolerances. The product user, and not Polyglass, is responsible for determining the suitability and compatibility of our products for the user's intended use.

**For the most current product data and warranty information, visit [www.polyglass.us](http://www.polyglass.us)**