

# TERAPRO BASE RESIN



## Commercial Product Data Sheet

### Product Description

Terapro Base Resin is a high performance multi-component, fast curing, PMMA resin for use in Terapro and Terapro VTS Waterproofing and Surfacing Systems.

### Product Uses

Terapro Base resin, when catalyzed is the principle waterproofing component of reinforced Terapro and Terapro VTS Waterproofing and Surfacing Systems. This high-performance, fast-curing PMMA resin is designed for use in both pedestrian and vehicular traffic areas.

### Color

Terapro Base Resin is supplied in a beige color, #1013.

### Packaging

Terapro Base Resin is supplied in 10-kg (22-lb) resealable drums with locking rings.

### Coverage Rates

Reinforced Terapro and Terapro VTS Systems

Minimum total coverage: 0.28 kg/sf (3 kg/m<sup>2</sup>)

Base coat (minimum consumption): 0.19 kg/sf (2 kg/m<sup>2</sup>)

Top coat (minimum consumption): .09 kg/sf (1 kg/m<sup>2</sup>)

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

### Application Conditions

Terapro Base Resin is available in summer and winter grades. Care should be taken to ensure that the correct formulation is used for the application based upon the ambient temperature.

#### Summer Grade

Summer Grade Terapro Base Resin can be applied when the ambient temperature is between 59°F (15°C) and 95°F (35°C) and the substrate temperature is between 59°F (15°C) and 122°F (50°C). Discontinue resin application when the ambient or substrate temperature is outside the ranges listed above. Provide adequate shade over the substrate area both prior to and during application as necessary to maintain substrate surface temperatures below 122° F (50° C).

#### Winter Grade

Winter Grade Terapro Base Resin can be applied when the ambient temperature is between 23°F (-5°C) and 68°F (20°C) and the substrate temperature is between 23°F (-5°C) and 77°F (25°C). Discontinue resin application when the ambient or substrate temperature is outside the ranges listed above.

### Handling

Do not smoke. Keep away from open fire, flame, or any ignition source. Vapors may form explosive mixtures with air. Avoid skin and eye contact with this material. Avoid breathing fumes. Do not eat, drink, or smoke in the application area. Consult the Safety Data Sheet (SDS) for additional information pertaining to this product.

### Storage

Product shelf life is 6 months from ship date. Shelf life will be reduced if product is stored at temperatures above 77°F (25°C). Store indoors in a closed container in a well-ventilated, cool, dry area away from heat, open fire, any ignition source, direct sunlight, oxidizing agents, strong acids, and strong alkalis. Do not store in temperatures below 32°F (0°C). Product may auto-polymerize at temperatures greater than 140°F (60°C). Materials stored on the job site during application should be kept on a pallet in a shaded, well-ventilated area. In unshaded areas, materials should be covered with a white, reflective tarp in a manner that allows air circulation underneath the tarp.

### Personal Protection Equipment (PPE)

Workers must wear a long sleeved shirt with long pants and work boots. Workers must use only butyl rubber or nitrile gloves when mixing or applying this product. Safety goggles are required for eye protection.

Use local exhaust ventilation to maintain worker exposure below TLV. If the airborne concentration poses a health hazard, becomes irritating or exceeds recommended limits, use a NIOSH approved respirator in accordance with OSHA Respirator Protection requirements under 29 CFR 1910.134. Specific type of respirator will depend of the airborne concentration. Filtering face piece or dust mask is not acceptable for use with this product if TLV filtering levels have been exceeded.

### Mixing & Catalyzing

If batch mixing, thoroughly mix the entire drum of resin for 2-3 minutes prior to pouring resin into a second container. Catalyze only the amount of resin that can be used within the anticipated pot life. Add pre-measured catalyst to the resin, stir for 2 minutes using a slow-speed mechanical agitator or mixing stick, and apply to the substrate. The amount of catalyst needed is based on the weight of the resin used, and varies with the ambient temperature as shown in the chart on the back of this sheet.

### Pot Life

Terapro Base Resin pot life is approximately 15 minutes at 68°F (20°C). Pot life will be reduced if the resin is at higher temperatures. Pot life can be maximized by storing product under controlled conditions and ensuring that the resin is at the low range of minimum storage temperature during/after the addition of catalyst and prior to application.

### Set (Cure) Times at 68°F (20°C)

Minimum set (cure) times noted below are approximate, and may vary. The information provided is based on laboratory conditions, and is intended for use as a guideline only. Actual set (cure) times should be established in the field, based on actual field conditions.

Rain Proof at 68°F (20°C): Approximately 30 minutes  
Ready for Next Coat at 68°F (20°C): Approximately 45 minutes  
Stress Resistant at 68°F (20°C): Approximately 2 hours

### Tool Cleaning

When work is interrupted or completed, reusable tools must be thoroughly cleaned with Pro Prep before any catalyzed resin on the tools hardens.

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Terapro Base Resin - Summer Grade Pro Catalyst Mixing Chart								
The amount of Pro Catalyst used with Summer Grade Terapro Base Resin varies from a minimum of 2% to 4% maximum by weight, depending upon the ambient temperatures as indicated in the following table:								
Resin Quantity	Summer Grade 2% Catalyst 68°F to 95°F (20°C to 35°C)				Summer Grade 4% Catalyst 59°F to 68°F (15°C to 20°C)			
	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags
1.0 kg (0.72 liter)	20	.02	2	n/a	40	.04	4	n/a
5.0 kg (3.6 liter)	100	0.1	10	1	200	0.2	20	2
10.0 kg (7.2 liter)	200	0.2	20	2	400	0.4	40	4

Terapro Base Resin - Winter Grade Pro Catalyst Mixing Chart												
The amount of Pro Catalyst used with Winter Grade Terapro Base Resin varies from a minimum of 2% to 6% maximum by weight, depending upon the ambient temperatures as indicated in the following table:												
Resin Quantity	Winter Grade 2% Catalyst 59°F to 68°F (15°C to 20°C)				Winter Grade 4% Catalyst 41°F to 59°F (5°C to 15°C)				Winter Grade 6% Catalyst 23°F to 41°F (-5°C to 5°C)			
	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags
1.0 kg (0.72 liter)	20	0.02	2	n/a	40	0.04	4	n/a	60	0.06	6	n/a
5.0 kg (3.6 liter)	100	0.1	10	1	200	0.2	20	2	300	0.3	30	3
10.0 kg (7.2 liter)	200	0.2	20	2	400	0.4	40	4	600	0.6	60	6
Substrate temperature range for application of Winter Grade Terapro Base Resin is 23°F to 77°F (-5°C to 25°C).												

## Physical Properties

Property (as installed)	Values / Units	Test Method
Membrane Thickness, min.	100 mils (2.5 mm)	ASTM D 5147, section 5
Peak Load @ 73°F, avg.	70 lbf/in (12.3 kN/m)	ASTM D 5147, section 6
Elongation @ Peak Load, avg.	35%	ASTM D 5147, section 6
Peak Load @ 73°F, avg.	90 lbf/in (15.8 kN/m)	ASTM D 412, (dumbbell)
Elongation @ Peak Load, avg.	35%	ASTM D 412 (dumbbell)
Shore A Hardness, avg.	81	ASTM D 2240
Water Absorption, (Method I) (24h @ 73°F [23°C])	0.8 %	ASTM D 570
Water Absorption, (Method II) (48h @ 122°F [50°C])	1.2 %	ASTM D 570
Low Temperature Flexibility	23°F (-5°C)	ASTM D 5147, section 11
Dimensional Stability (maximum movement)	0.15 %	D 5147, section 10
Tear Strength	90 lbf (0.4 kN)	ASTM D 5147, section 7
Taber Abrasion*, avg.	60-70 mg	ASTM D 4060
Hydrostatic Pressure Resistance	350 psi (2.4MPa)	ASTM D 751

Values in this table are based on minimum 100 mil (2.5 mm) thick reinforced Terapro Base Resin Membrane. This value excludes any primers, surface aggregate, or finish coats. The Terapro Base Resin thickness for unreinforced membrane ranges from 100 to 115 mils (2.5 to 2.9 mm) depending on the specified surface treatment.

\* Taber Abrasion was tested on quartz surfaced Terapro Membrane.

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