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 the reinforced layer of 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.

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.

Application and Coverage Rates
Reinforced Terapro and Terapro VTS Systems
Minimum total application rate: 0.28 kg/sf (3 kg/m²)
Base coat (minimum application rate): 0.19 kg/sf (2 kg/m²)
Top coat (minimum application rate): 0.09 kg/sf (1 kg/m²)
Typical coverage per 10-kg pail: 36 square feet

See Siplast Installer's Guides for specific applications. Application and coverage rates will vary depending upon the profile and absorbency of the 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 59ºF (15ºC) and 95ºF (35ºC) and the substrate temperature is between 59ºF (15ºC) and 122ºF (50ºC). 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 122º F (50º C).

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

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 charts on the back of this sheet.

Pot Life
Terapro Base Resin pot life is approximately 15 minutes at 68ºF (20ºC). 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/following 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 68ºF (20ºC): Approximately 30 minutes
Ready for Next Coat at 68ºF (20ºC): Approximately 45 minutes
Stress Resistant at 68ºF (20ºC): Approximately 2 hours

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

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.

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.

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.

Consult the Safety Data Sheet (SDS) for additional information pertaining to this product.

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Physical Properties

Property (as installed)	Values / Units	Test Method
Membrane Thickness, min.	84 mils (2.13 mm)	ASTM D5147, section 5
Peak Load @ 73°F, avg.	65 lbf/in (11.38 kN/m)	ASTM D5147, section 6
Elongation @ Peak Load, avg.	35%	ASTM D5147, section 6
Water Absorption, (Method I) (24h @ 73°F [23°C])	0.8%	ASTM D570
Water Absorption, (Method II) (48h @ 122°F [50°C])	1.2%	ASTM D570
Water Vapor Transmission (includes surfacing components)	0.011 perms	ASTM E96
Low Temperature Flexibility	23°F (-5°C)	ASTM D5147, section 11
Dimensional Stability (maximum movement)	0.15 %	ASTM D5147, section 10
Tear Strength	90 lbf (0.4 kN)	ASTM D5147, section 7
Hydrostatic Pressure Resistance	350 psi (2.4MPa)	ASTM D751

Values in this table (other than water vapor transmission) are based on minimum 84 mil (2.13 mm) thick reinforced Terapro Base Resin Membrane. This value excludes any primers, surface aggregate, or finish coats.

Current copies of all Siplast Commercial Product Data Sheets are posted on the Siplast Web site at www.Siplast.com.

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Commercial Product Data Sheet

Mass and Volume Data for Pro Catalyst Liquid

Pro Catalyst Liquid - net contents per unit			
2.5 kilograms	2.25 liters	2250 milliliters	10 cups

Product	Density (kg per liter)	Liquid Measure (liters per kg)	Liquid Measure (milliliters per kg)
Pro Catalyst Liquid	1.1 kilograms per liter	0.91 liters per kilogram	910 milliliters per kilogram

Pro Catalyst Liquid Mixing Chart
Summer Grade Terapro Base Resin

Resin Quantity	Ambient Temperature 68ºF to 104ºF (20ºC to 40ºC)		Ambient Temperature 59ºF to 68ºF (15ºC to 20ºC)	
	Tablespoons	Cups	Tablespoons	Cups
1 kg (0.72 liter)	2	n/a	4	n/a
10 kg (7.2 liters)	n/a	1	n/a	2
20 kg (14.3 liters)	n/a	2	n/a	4
Substrate temperature range for application of Summer Grade Terapro resin is 59ºF to 122ºF (15ºC to 50ºC)				

Pro Catalyst Liquid Mixing Chart
Winter Grade Terapro Base Resin

Resin Quantity	Ambient Temperature 59ºF to 68ºF (15ºC to 20ºC)		Ambient Temperature 41ºF to 59ºF (5ºC to 15ºC)		Ambient Temperate 23ºF to 41ºF (-5ºC to 5ºC)	
	Tablespoons	Cups	Tablespoons	Cups	Tablespoons	Cups
1 kg (0.72 liter)	2	n/a	4	n/a	6	n/a
10 kg (7.2 liters)	n/a	1	n/a	2	n/a	3
20 kg (14.3 liters)	n/a	2	n/a	4	n/a	6
Substrate temperature range for application of Winter Grade Terapro resin is 23ºF to 77ºF (-5ºC to 25ºC)						

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Mass and Volume Data for Pro Catalyst Powder

Pro Catalyst Powder Conversion Chart		
Box	Bags	Tablespoons
1 kg	0.1 kg	0.01 kg
10 (0.1 kg) bags	n/a	0.1 bags
100 Tablespoons	10 Tablespoons	n/a

Pro Catalyst Powder Mixing Chart
Summer Grade Terapro Base Resin

The amount of Pro Catalyst Powder used with Summer Grade 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	Ambient Temperature 2% Catalyst 68ºF to 104ºF (20ºC to 40ºC)				Ambient Temperature 4% Catalyst 59ºF to 68ºF (15ºC to 20ºC)			
	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags
1 kg (0.72 liter)	20	0.02	2	n/a	40	0.04	4	n/a
10 kg (7.2 liters)	200	0.2	n/a	2	400	0.4	n/a	4
20 kg (14.3 liters)	400	0.4	n/a	4	800	0.8	n/a	8
Substrate temperature range for application of Summer Grade Resin is 59ºF to 122ºF (15ºC to 50ºC)								

Pro Catalyst Powder Mixing Chart
Winter Grade Terapro Base Resin

The amount of Pro Catalyst Powder used with Winter Grade 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	Ambient Temperature 2% Catalyst 59ºF to 68ºF (15ºC to 20ºC)				Ambient Temperature 4% Catalyst 41ºF to 59ºF (5ºC to 15ºC)				Ambient Temperature 6% Catalyst 23ºF to 41ºF (-5ºC to 5ºC)			
	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags	g	kg	Tblsp.	0.1-kg Bags
1 kg (0.72 liter)	20	0.02	2	n/a	40	0.04	4	n/a	60	0.06	6	n/a
10 kg (7.2 liters)	200	0.2	n/a	2	400	0.4	n/a	4	600	0.6	n/a	6
20 kg (14.3 liters)	400	0.4	n/a	4	800	0.8	n/a	8	1200	1.2	n/a	12