

TERAPRO WEARING LAYER RESIN



Commercial Product Data Sheet

Product Description

Terapro Wearing Layer Resin is a high performance multi-component, fast curing, PMMA resin.

Product Uses

Terapro Wearing Layer Resin is a principal component of reinforced and unreinforced Terapro Waterproofing and Surfacing Systems. This high performance, fast curing PMMA resin is designed for use in pedestrian areas.

Color

Terapro Wearing Layer Resin is supplied in a beige color, #1001.

Packaging

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

Coverage Rates

Terapro Quartz Surfaced Systems	
Reinforced minimum resin consumption	0.09 kg/sf (1.0 kg/m ²)
Unreinforced minimum resin consumption	0.09 kg/sf (1.0 kg/m ²)
Terapro Pro Chip Surfaced Systems	
Reinforced minimum resin consumption	0.139 kg/sf (1.5 kg/m ²)
Unreinforced minimum resin consumption	0.139 kg/sf (1.5 kg/m ²)

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

Application Conditions

Terapro Wearing Layer 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 Wearing Layer Resin can be applied when the ambient temperature is between 59°F (15°C) and 95°F (35°C) and the surface temperature is between 59°F (15°C) and 122°F (50°C). In warm temperatures, the surface should be shaded for up to one hour immediately prior to and during application as necessary to maintain the surface at temperatures below 122°F (50°C).

Winter Grade

Winter Grade Terapro Wearing Layer Resin can be applied when the ambient temperature is between 23°F (-5°C) and 68°F (20°C) and the surface temperature is between 23°F (-5°C) and 77°F (25°C).

Storage

Product shelf life is approximately 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. Consult the Material Safety Data Sheet for additional information pertaining to this product.

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 glasses with side shields 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 Wearing Layer Resin pot life is approximately 15 minutes at 68°F (20°C). Because pot life is in large part dependent on ambient temperature, which constantly changes, actual pot life must be determined in the field. Pot life will be reduced at high temperatures.

Set Times at 68°F (20°C)

Minimum set 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 times and 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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Summer Grade Pro Catalyst Mixing Chart								
The amount of Pro Catalyst used with Summer Grade Terapro Wearing Layer 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

Winter Grade Pro Catalyst Mixing Chart								
The amount of Pro Catalyst used with Winter Grade Terapro Wearing Layer 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	Winter Grade 2% Catalyst 59°F to 68°F (15°C to 20°C)				Winter Grade 4% Catalyst 23°F to 59°F (-5°C to 15°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

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 Membrane System. This value excludes any primers, surface aggregate or finish coats. The Terapro Membrane System 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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