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PUMAGRIP 40

TECHNICAL DATA SHEET

Product Description:	Pumagrip 40 is an, elastic, two component reactive coating based on polyurethane modified methacrylates (PUMA)
Uses:	Pumagrip 40 is used as an aggregate holding wear coat for Pumadeq PED Pumadeq PED systems are used for balconies and walkways
Outstanding Features:	PUMA technology combines the speed of PMMA application with the elasticity of Polyurethane Pumagrip 40 cures within 1 hour; even at very low temperatures Pumagrip 40 is highly abrasion resistant Pumagrip 40 has no solvent and is VOC compliant
Kit Code:	M40
Kit Size:	5 gallons, in metal pails
Color(s):	Gray
Health and Safety Precautions:	Before using, refer to Material Safety Data Sheets (MSDS) Ensure the same safe working methods are followed for all persons in the work area Wear suitable protective clothing, butyl rubber or nitrile gloves and safety goggles with side shields during mixing and application When Pumagrip 40 is applied in enclosed areas without natural ventilation, forced ventilation must be arranged Avoid strong concentration of vapor as well as direct contact with skin or eyes If concentration exceeds recommended limits in MSDS, a NIOSH approved respirator (OSHA 29 CFR 1910.134) is required Pumagrip 40 is highly flammable; keep away from all sources of ignition and do not smoke Uncured polymers and curing agents may be alkaline, toxic or both. They may cause allergic reactions or hypersensitivity reactions Contact with skin – wash immediately with soap and water Contact with eyes – rinse immediately with lots of water and seek medical attention
Storage:	In original, unopened containers between 32°F and 75°F Storing the material at a higher temperature may reduce its shelf life Under dry, ventilated conditions and out of direct sunlight . Keep in an upright position and do not over stack
Shelf Life:	Six months in unopened containers stored between 32°F and 75°F
Site Conditions:	All surfaces should be prepared as per the relevant TQ3 PUMADEQ specification The surface temperature must at least 6°F above the dew point and rising. Use a surface dew point meter Air and substrate temperatures must be between 32°F and 104°F, RH < 85%
Surface Preparation:	Surfaces to be coated must be firm, dry, free of loose and brittle particles, such as loose sand in the primer and contaminants that would impair adhesion If there are any doubts about the suitability of a substrate, further advice should be sought from a TQ3 representative and a small trial area applied and tested appropriately

TQ3 aim to ensure that any indicative advice, information or recommendations given are reliable and correct. This technical data sheet supersedes all previous concerning the product; ensure that you are using the latest issued. The physical properties indicated, are from testing carried out in a controlled laboratory environment. The customer must satisfy himself as to the suitability of any TQ3 products for his requirements. No undertaking can be given against infringement of any patented processes. TQ3 assumes no obligation or liability for the information in this document. No express warranties are given except for any applicable written warranties specifically provided by TQ3. All implied warranties including those of merchantability and fitness for a particular purpose are expressly excluded.

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Product Mixing:	<p>Prior to using Pumagrip 40, it must be thoroughly mixed, using an electric, slow speed (300-400rpm), high torque drill with mixing paddle, to achieve a uniform distribution of the paraffin contained in the product</p> <p>Only catalyze the amount of material that can be applied within the estimated pot life</p> <p>1/Pre-mix the resin for minimum 2 minutes 2/Then mix resin together with the TQ3 BPO Catalyst, for 1 minute minimum or longer, until achieving a streak free appearance. The Catalyst blend is added in accordance with the following substrate temperature guidelines:</p> <p>32-40°F → add 11-13 volume oz. per gallon resin 40-60°F → add 7-11 volume oz. per gallon resin 60-70°F → add 5-7 volume oz. per gallon resin 70-80°F → add 4-5 volume oz. per gallon resin 80-95°F → add 3 volume oz. per gallon resin These rates will also be affected by the resin and air temperature</p> <p>After catalyzing, add 1 bag (50lbs.) of Filler #4, to the 5 gallons. For partial mixes use ratio of 10lbs Filler # 4/1 gallon resin</p> <p>Mix filler and resin for 1 minute minimum</p> <p>Do not mix new material with old, uncured material as this can significantly reduce work times. Use new pails frequently Decant newly mixed material into smaller containers or onto substrate and spread to prolong working time</p>
Pot Life @ 32°F and 95°F:	<p>10-15 minutes if TQ3 BPO Catalyst mix volumes followed</p> <p>The working time of all Pumadeq materials will be influenced by the amount of TQ3 BPO Catalyst added, the length of time they are mixed, the substrate and ambient temperatures and how quickly they are removed from the mixing pail and spread on the substrate</p>
Product Application:	<p>For best results, apply freshly catalyzed material – use small batch sizes</p> <p>After the Catalyst and Resin have been mixed thoroughly, Pumagrip 40 is applied evenly by notched rubber squeegee, spiked roller and brush. Allow for saturation of rollers and brushes</p> <p>Let Pumagrip 40 self level and monitor it's curing which will accelerate at higher temperatures.</p>
Application Rate:	<p>Broadcast clean, dry, sieve size # 20-30 sand into the Pumagrip 40, until fully filled (1.25lbs/sf) or as per TQ3 specification</p> <p>Apply the aggregate by shovel or hopper gun, in multiple passes, allowing it to "fall" vertically onto the coating. This will help avoid any rippling in finished surface</p> <p>Pumagrip 40 should be applied as per the approved TQ3 PUMADEQ specification, usually 40sf/50lbs Filler # 4 + 5 gallons resin mix</p>
WFT – DFT:	WFT-DFT = 70 mils
Re-coat and Traffic Times:	<p>Minimum 1 hour</p> <p>If the surface is contaminated or overcoat times exceed 48 hours, clean with a clean cloth and Puma Cleaning Fluid</p> <p>Allow solvent to evaporate before over coating</p>
Product Restrictions And Limitations:	<p>Do not apply too thickly or paraffin will not fully evaporate, causing incomplete cure</p> <p>Can be walked on after 30 minutes</p> <p>Fully cured after 60 minutes</p>
Clean-up and Disposal:	<p>Follow all Health and Safety instructions on MSDS</p> <p>Wash body with soap and water</p> <p>Clean tools and equipment with xylene or MEK</p> <p>Ensure all material is mixed and cured before disposal, in accordance with federal, state and local regulations</p> <p>Dispose of all packaging in accordance with federal, state and local regulations</p>

	Property	Result	ASTM Test Method
MATERIAL PROPERTIES	Solids Content	100%	D1644-2001 Method A
	VOC content	0 g/l	C1250-05 836,957
	Adhesion	> 435 psi, substrate failure	C1583/C, 1583M-04
	Tensile Strength	1617 psi	D638-08
	Elongation	250%	D638-08

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