"High Performance Industrial Flooring"

401-TF PumaCRETE®

Urethane Floor Primer & Topcoat · 401-TF Composite

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

401-TF is a versatile, roller-applied primer and topcoat. It can be used as a primer for PumaCRETE flooring products, or as a stand-alone encapsulant over mastic and asphalt tiles prior to other floor coverings such as vinyl or tile.

For substrates with questionable adhesion and powered-lift traffic, it can also be applied as a composite with fiberglass reinforcement (**401-TF Composite** system) when applying 401-ECO topping as a finished floor.

COMPOSITION

Non-toxic, water-dispersed cementitious polyurethane resin system. As needed, may be combined with 1.5 oz chopped-strand fiberglass mat (401-TF Composite).

APPEARANCE & SLIP RESISTANCE

Matte finish. COF > 0.6 (slip resistant per ADA requirements).

WATER & MOISTURE TOLERANCE

Handles up to 15 lbs of water vapor transmission and over 99% concrete internal RH. The flooring functions as a vapor-permeable mitigation system.

SUBSTRATES

Concrete, asphalt planks/tiles/mastic, and structurally sound toppings, including cement board, plywood, ceramic and quarry tile, brick, and polymer cement screeds such as Cement-All.

Special substrates

For asphalt planks, mastic, or vinyl in powered-lift areas, PumaCRETE 401-TF Composite (fiberglass reinforcement) must be applied first to provide proper durability.

For custom applications, adhesion testing may be required to determine suitable adhesion. Contact PumaCRETE technical support for more information.

SURFACE PREPARATION

Typically, a clean and dry surface, free of wax or other contaminants, is all that is required for proper adhesion. An industrial-grade wax remover is highly recommended for any surfaces that have been previously waxed.

PRODUCT CHARACTERISTICS

Finish	Matte; COF > 0.6
Thickness & Coverage (neat)	5–8 mils; one unit covers 150–200 sq ft, depending on roughness of substrate
Application Range	35–85°F; ideal storage/working temperature 70°F
Storage	Materials are freezable — store above 35°F

CURE SCHEDULE @ 77°F

Standard	12 hours foot traffic; 24 hours full cure
With PumaCRETE Catalyst	2–4 hours foot traffic; 12 hours full cure

PACKAGING

1 pre-measured unit	1 pail 401 HF/ECO/TF Resin + 1 pail 401 HF/ECO/TF Hardener + 1 bag 401-TF aggregate/powder
Optional colors	6 oz 120-PumaCOLOR liquid, or 6 oz 121-PumaTINT powder (black or red only)

COLORS AVAILABLE

Natural (no color), Black, or any PumaCOLOR tint.

Lighter colors will readily fade and discolor from UV light.

PHYSICAL PROPERTIES — 401-TF COMPOSITE SYSTEM

Property	Method	Result
Tensile Strength	ASTM C507	4,900 psi
Flexural Strength	ASTM C580	3,600 psi
Shear Strength	ASTM C732	5,100 psi

MIXING INSTRUCTIONS

1 unit = 1 pail resin + 1 pail hardener + 1 bag 401-TF aggregate

1. Pour one pail of 401 HF-HFB-TF Resin into the mixing container. Optional: mix PumaCOLOR tint into the resin for 30 seconds.
2. Add one pail of 401 HF-HFB-TF Hardener.
3. Add one bag of 401-TF aggregate (81 oz). Optional: add 3 oz of PumaCRETE catalyst for 25% faster curing.
4. Mix for 15 seconds. **Immediately pour out 100% of the contents.**

Catalyst will cause materials to set extremely quickly until the mix is emptied and spread onto the surface.

APPLICATION — PRIMER OR TOPCOAT

Pour in a ribbon and spread with a 5–7 mil notched squeegee (EZ Squeegee by Midwest Rake, or equal), then roll with a 3/8" nap paint roller. It may also be brushed on in a consistent, thin, even finish.

Optional: fiberglass mat may be embedded into the primer coat (401-TF Composite) for additional strength.

When used as a primer, additional build-up coats can be applied, each adding 1/16" thickness. Broadcast graded quartz sand (20/40 or 40/60 mesh) into the wet primer to rejection. When dry, sweep/vacuum the excess quartz sand and apply additional layers as needed.

MAINTENANCE

Regular sweeping, mopping, or a floor scrubber may be employed. The new surface may be waxed with any type of floor wax, such as acrylic floor finish, to provide shine and increased cleanability. Waxing is not required to maintain the surface or extend its life.

PHYSICAL PROPERTIES — 401-TF COMPOSITE SYSTEM (CONTINUED)

Abrasion Resistance (Method A)	ASTM C779	0.019 @ 60 min
Thermal Distortion	—	Passing up to 160°F
Coeff. of Thermal Expansion	ASTM C531	1.5×10^{-5}
Water Absorption	MIL-PRF-3134	0.64%
Hardness (Durometer D)	ASTM D2240	90
Adhesion	ASTM D4541	400 psi, 100% failure in concrete
Flammability — Critical Radiant Flux	ASTM E648	1.07 watts/sq cm
Flammability	ASTM D635	Self-extinguishing
Impact Strength	ASTM D4226	> 160 in-lb
VOC	ASTM D3960	0 lb/gal
Coefficient of Friction	—	> 0.6

TECHNICAL SUPPORT

For any application questions, please call PumaCRETE technical support at 857-226-8247.

HEALTH & SAFETY

Water-based, 0 g/L VOC product system; virtually odorless and non-toxic. Please read the Safety Data Sheets (SDS) for detailed information on safe handling and use of this product.

WARRANTY

PumaCRETE® 401-TF materials have a limited warranty.

TERMS OF WARRANTY

Modification to any of PumaCRETE's products voids the warranty. The installer shall maintain a written, contemporaneous record of field conditions (including, without limitation, surface and atmospheric conditions, usage rates, and lot numbers of products installed). PumaCRETE reserves the right of inspection of any installed product, installation and maintenance records, and records of field conditions, and may conduct additional testing as is reasonably required to investigate any warranty claims. Warranty shall only apply to products or materials that have been paid for in full.