



DESCRIPTION

401-ECO PumaCRETE® is a heavy duty floor specially formulated for U.S. Postal Service distribution facilities, for repair or replacement of asphalt plank flooring. It is a low odor, urethane based, screeded floor topping. It is designed to provide excellent resistance to forklifts, mail carts, and other physical aggression from commonly used rubber wheels.

COMPOSITION

Water dispersed polyurethane resin system combined with graded silica aggregates, and optional 3-part 401-TF topcoat.

APPEARANCE

Matte finish. Standard texture is light non slip. Texture may be increased or decreased for custom applications.

DURABILITY

Resistant to impact, abrasion, and heavy loading from fork trucks, pallet jacks and carts, commonly found in U.S Postal Service facilities.

WATER AND MOISTURE TOLERANCE

Handles up to 25 lbs of water vapor transmission and over 99% concrete internal RH. The flooring functions as a vapor permeable, mitigation system.

CERTIFICATIONS

401-ECO PumaCRETE® is specified for replacement and repair of asphalt and ACM tiles, in U.S. Postal facilities.

THICKNESS

Typical 1/4 to 3/4 inch (6-18 mm)

STANDARD SUBSTRATES

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

SPECIAL SUBSTRATES

For adhesion to asphalt planks, mastic or vinyl in powered lift areas-- PumaCRETE 401-TF Composite (fiberglass reinforcement) shall be required, prior to 401-ECO application.

OTHER CUSTOM APPLICATIONS: adhesion testing may be required, to determine suitable adhesion. Contact PumaCRETE technical support for more information.

SURFACE PREPARATION

Ensure surfaces are clean, dry, and free of wax compounds, and loose or unsound materials.

MIXING

1. One pail 401-RESIN
2. COLOR/TINT: mix into resin 30 seconds (see amount below)
Black: 5 oz black powder tint (PumaTINT)
All Other Colors: 8 oz PumaCOLOR liquid tint.
3. Add one pail 401-HARDENER
MIX FOR 30 SECONDS using egg-beater/birdcage type paddle.
4. Add 1 quart portland additive (not required if <1/2" thickness)
5. Slowly add 1 bag ECO aggregate (52 lb), and mix until all aggregate is absorbed (approx. 1 minute).

IMMEDIATELY POUR OUT 100% OF CONTENTS

(scrape out materials on inside of pail with trowel as needed).

APPLICATION

One pass, urethane cement mortar. It may be spread at 1/4 to 3/4 inch with screed board, screed box, or flat 4x12" trowel.

COVERAGE

Theoretical: 1/4 inch one unit = 22 ft² 1/2 inch one unit = 11 ft²
1/2-inch ACM tile replacement, estimated actual rate is typically 8 ft² per unit.

NOTE: Rates shall decrease over rough surfaces. Always check your coverage rate during install, to ensure you are getting proper coverage.)

JOINT TREATMENT

Moving joints in the substrate must be honored in the PumaCRETE. Joints in new concrete and expansion joints (in general, >1/4-inch wide, must be treated as a moving joint, and must be sawcut 40% of depth, and filled with backer rod and flexible 2-part joint sealant.

SPECIFICATION DETAIL

Please refer to Engineering/Architectural Details.

MAINTENANCE (see Puma-Crete Cleaning Instructions)

Regular cleaning of the applied system is recommended in order to maintain slip resistant properties and cosmetics. Normal proprietary cleaning agents w/ standard auto floor scrubber. Waxing may be employed, for enhanced shine and cleanability.

CURE SCHEDULE (70 deg F)

12 hours foot traffic, 24 hrs full cure *

*catalyst available for faster curing, if faster cure time required.

CHEMICAL RESISTANCE

Excellent resistances to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents.

COLORS AVAILABLE

Standard color: Black 60 colors available (see PumaCRETE color guide)
note: light colors shall fade with this product, due to UV exposure.

TECHNICAL DATA

Compressive strength:	ASTM C579	9,620 psi
Tensile strength:	ASTM C307	4,900 psi
Flexural strength:	ASTM C580	3,601 psi
Shear Strength:	ASTM D732	5,100 psi
Abrasion resistance(method A)	ASTM C779	.019 in @ 60 min
Density lb/ft ³		130.41 lb/ft ³
Impact Resistance		IR>4
Thermal Distortion		Passing up to 300 deg F
Thermal Coeff. Therm. Expans.	ASTM C531	1.5x10e5
Water Absorption	MIL-PRF-3134	0.64%
Surface Hardness	ASTM D2240	85-90 Durometer "D"
Adhesion	ASTM D4541	400psi 100% failure in conc.
Flammability-Critical Radiant Flux	ASTME648	1.07 watts/sq cm
Flammability	ASTM D635	Self Extinguishing
Impact Strength	ASTM D4226	>160 in-lb
VOC	ASTM D3960	.083 lb/gal
Coefficient of Friction		> 0.60

HEALTH AND SAFETY

This is a water based and 0 gram VOC/Liter product system.

STORAGE & MIXING CONDITIONS

The storage, mixing and application conditions can affect the quality of the finish produced. Materials are freezable, and therefore must be stored above 35 deg F. Application range is 35-85° F. Optimum application temperature is 70 deg F.

CONDITIONS OF USAGE:

Installation of all products purchased must be by professional installers periodically published by PUMA-CRETE Corp or otherwise approved by PUMA-CRETE Corp in writing. Modification to any of PUMA-CRETE'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). PUMA-CRETE Corp 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 for products or materials that have been paid for in full.