

TD.826 – TECHNICAL DATA: HERMETIC™ 2.2T CEMENTITIOUS URETHANE TOPCOAT

Revised: 11/7/2023 Version: 1.6

Description:

HERMETIC™ 2.2T is a 100% solids, three component, cementitious urethane topcoat, specifically designed for top coating HERMETIC™ 4.8S and HERMETIC™ 7.9M thermal shock resistant overlays. HERMETIC™ 2.2T is a fast-setting thermal shock resistant topcoat offering resistance to food, beverage, and food processing chemicals when compared to traditional topcoats.

Key Features:

- Excellent chemical and stain resistance
- Water based; VOC compliant (Zero VOC)
- Passes ADA recommendations, meets USDA, FDA, OSHA, and CFIA standards
- Fast-curing, one-step installation
- Will not support bacterial growth
- Resistant to forced hot steam over 230°F/110°C
- Can be applied down to 35°F/2°C (no moisture/ice in or on substrate)
- Service temperature -100°F/-173°C to 230°F/110°C
- No odor
- CA 01350 indoor air quality compliant
- Does not contain phthalates

Physical Properties

@ 77° F / 24° C, 50% R.H.

Mix Ratio		pre-engineered 3 component kit
Gel Time	1 gallon @ 70°F/21°C	20 minutes
Consistency		squeegee applied /back roll topcoat
Compressive Strength	ASTM C579	8,000 psi
Shore D hardness	ASTM D2240	75-80
Adhesion	ASTM D4541	>400 psi (100% concrete failure)
Tensile strength	ASTM C307	1,200 psi
Flexural Strength	ASTM C580	2,500 psi
Impact resistance	ASTM D2794	Pass
Abrasion Resistance	ASTM D4060	35 mg lost
Thermal Shock Resistance	MIL F52505	no cracking or loss of adhesion
Service temperature		-10°F/-23°C to 230°F/110°C forced steam
VOC Content		0 g/l
Coefficient of friction		
Standard slip-resistant	ASTM D2047	>0.6 passes ADA recommendations
Indoor Air Quality	CA 01350	Compliant
Reaction to fire	EN 13501-1:2018	B _{FL} – s1

Stocked colors: Light gray, medium gray, dark gray, tile red, black, tan, white

Coverage: 90-110 sq. ft per gallon

Cure Schedule: (70°F / 21°C) Full Cure: 3-5 days

- Working Time: 20 minutes @ 70° F/ 21°C (less at higher temperatures)
- Foot Traffic: 5-7 hours (depending upon substrate temperature)
- Wheeled Traffic: 8-10 hours
- Thermal shock resistance: 48 hours

Chemical Resistance

1 = no effect with clean up and wash down within 48 hours,
 2 = clean up and wash down within 24 hours,
 3 = clean up and wash down within 1 hour
 4 = Not recommended

Acetone	3
Acetic Acid 1-10%	2
Acetic Acid 11-25%	3
Alcohol: (beer, wine, whisky, white spirits)	2
Ammonium Chloride 1-40%	2
Ammonium Hydroxide 1-10%	1
Ammonium Hydroxide 11-50%	2
Ammonium Sulphate 1-10%	1
Ammonium Hydroxide 11-50%	2
Brine (saturated)	1
Citric Acid 35%	1
Citric Acid 50%	2
Diesel Fuel	1
Diesel Oil	1
Ethylene Glycol	1
Fats, Oils Sugars	1
Formic Acid 1-20%	1
Formic Acid 21-50%	2
Gasoline, Jet Fuels (JP-4, 6), kerosene	1
Grape Juice	1
Hydraulic Oils	1
Hydrochloric Acid 1-10%	1
Hydrochloric Acid 11-20%	2
Hydrochloric Acid 21-37%	3
Hydrogen Peroxide 1-20%	1
Isopropyl Alcohol	1
Lactic Acid 1-10% (milk)	1
Lactic Acid 11-20%	2
Methyl ethyl ketone	3
Mineral Oil	1
Motor Oil	1
Nitric Acid 1-5%	3
Nitric Acid 6% -70%	4
Potassium Hydroxide 50%	1
Sulfuric Acid 1-5%	2
Turpentine	1
Toluene	3
Xylene	3

Some chemicals may cause discoloration in the flooring without affecting the performance or physical properties of the system. Test for suitability before use.

Packaging and Storage:

- Store in a temperature and weather-controlled area between 65° F / 18° C and 85° F / 29° C.
- Do not allow to freeze.
- Shelf Life: 1 year in original unopened containers.
 - Part A: 2 gallons/ 7.6 L
 - Part B: 2 gallons/ 7.6 L
 - Part C: 18.36 lb./ 8.4 kg plastic lined bag of cement mixture

This product has been engineered to meet demanding standards.

- Only mix whole complete kits to assure the performance criteria in this data sheet.
- Do not use partial kits or try to break down the kit as the performance will be compromised.
- Do not allow this product to freeze. Store in a dry environment between 50°F/10°C to 85°F/29°C.
- Shelf Life: 6 months from date of manufacture.

Mixing & Application:

- Using a mud paddle and ½ HP electric drill in 6-gallon Elite Crete Systems mixing container, pour in Part A and Part B, and add in pigment pack (sold separately).
- Mix for 10-15 seconds and immediately add Part C. Mix until completely wetted out, usually one minute of continuous mixing after all powder has been poured into the binder.
- Immediately pour the mixed slurry onto the prepared substrate spread with a squeegee and finish with a 3/8" thick nap roller.

Limitations:

- Exposure to ultraviolet light will change the color of Elite Crete Systems urethane slurry. Sunlight and metal halide lighting will cause yellowing without affecting the performance.
- As an option, a coat of AUS-V™ pigmented top coat can be applied to prevent ambering. Contact your local Elite Crete Systems representative for consultation.