

MAGNATILE™ CONCRETE FLOOR COATINGS

HIGH PERFORMANCE 100% SOLIDS EPOXY

Product Technical Data

Technical Data	Std Colors	Custom Colors
Generic Type	Cycloaliphatic Amine cured epoxy	
Pigment Type	TiO2 & inerts	Varies by color
Volume Solids (mixed)	100%	100%
Theoretical Coverage At 10 Mills	160 sq. ft./gal	160 sq. ft./gal
Film Thickness		
– Wet	8 – 12 Mills	8 – 12 Mills
– Dry	8 – 12 Mills	8 – 12 Mills
Dry Time @ 70° F		
– To Touch	8 Hours	8 Hours
– To Recoat	16 Hours	16 Hours
Dries By	Chemical Cure	Chemical Cure
Dry Heat Resistance	300° F	300° F
Viscosity @ 70° F (mixed)	90 KU	85 KU
Flash Point (Seta)	> 203 °F	> 203 °F
60° Specular Gloss	85% Minimum	85% Minimum
Surface Temperature		
– Min.	50° F	50° F
– Max.	85° F	85° F
Surface must be dry and at least 5° above the dew point		
Reducer (<i>Thin ONLY for critical application situations</i>)	xylol	xylol
Reduction		
– Brush	5%	5%
– Roller	5%	5%
– Spray	not recommended	not recommended
(Reduction will slow set time of material)		
Clean Up Thinner	Magnet S8 Reducer or xylol	
Mixing Ratio (by volume)	1:1	1:1
Mixing Time	3 Min.	3 Min.
Working Pot Life @ 70° F	60 Minutes	60 Minutes
Induction time	none following 3 minute mixing	
Weight Per Gallon (mixed)	10.9 lbs	10.2 lbs
Storage Temperature		
– Min.	50° F	50° F
– Max.	80° F	80° F

Volatle Organic Compounds (VOC)

Mixed, Unthinned Grams/Liter	zero	zero
Lbs./Gal.	zero	zero

Physical Properties Data

Test	Test Method	Results
Compressive Strength	ASTM C-579	14,850 psi
Flexural Strength	ASTM C-580	8390 psi
Elongation	ASTM C-638	0.40%
Tensile Strength	ASTM C-307	9,200 psi
Hardness	ASTM D-2240	84
Bond Strength	ASTM D-4541	530 psi
Water Absorption	ASTM C-413	0.15%
Coefficient of Friction	ASTM D-2047	0.6
Flammability	ASTM D-635	self-extinguishing
Abrasion Resistance (Taber test)	ASTM D-4060	0.06 g
Impact Resistance	ASTM D-2794	> 60 in-lbs
Heat Resistance		140° F (60° C)

Note: All tests run in triplicate. Above values are the average results.

Chemical & Solvent Spill Resistance

Reagent	24 Hours	1 Week
Brake Fluid	Excellent	Fair
Ethylene Glycol (Anti-Freeze)	Excellent	Excellent
Unleaded Gasoline	Excellent	Good
Diesel Fuel	Excellent	Excellent
37% Sulfuric Acid (Battery Acid)	Excellent	Fair
Motor Oil (SAE30)	Excellent	Excellent
Hydraulic Fluid	Excellent	Excellent
10% Acetic Acid	Very Good	Fair
30% Hydrochloric Acid (Muriatic)	Excellent	Good
Toluene	Good	Fair
Xylene	Very Good	Fair
Mineral Spirits	Excellent	Excellent
Methanol	Fair	Poor
Ethanol	Good	Fair
50% Sodium Hydroxide	Excellent	Excellent
Methyl Ethyl Ketone (MEK)	Fair	Poor
Jet Fuel - JP4	Excellent	Excellent
Deionized Water	Excellent	Excellent

Fully cured epoxy castings of 1/8" thickness were immersed in listed reagents for 24 hours. Samples were then removed, weighed, and hardness tested immediately.

Explanation of results: Ratings are based on the samples resistance to degradation by the reagent solution. Damage caused by solvent or chemical spills will soften and swell epoxy coatings. Resistance to damage is determined by a coatings ability to remain hard with no swelling or absorption of the reagent.

Castings completely unaffected by reagents scored a result of excellent. Castings marginally affected by reagents but returned to normal hardness after removal from reagent scored results of very good. Castings suffering slight damage and a small weight gain scored a result of good. Castings with ratings of fair suffered permanent damage and weight loss indicating that the reagent was dissolving the sample.

Samples were cured for 7 days at 77°F before testing.

The study above shows that MAGNATILE™ provides very good to excellent chemical resistance when exposed to a variety of common solvents, acids and bases.

For floors subject to frequent heavy abuse such as automotive repair shops and body shops, the use of an engineered chemical resistant topcoat may be necessary to achieve greater resistance to abrasions and frequent chemical spills.

Ask about MAGNATILE™ Chemical Resistant Urethane Clear Coat and upgrade your floor with the required protection for these situations.

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The last time you'll ever paint your garage or shop floor!

100% SOLIDS EPOXY