HERCULINER™ Black
Slip Resistant Safety Coating
SPECIFICATIONS

DESCRIPTION
HERCULINER is a tough, one-part polyurethane with self-contained, rubber granules which give it an attractive, tough-textured appearance. During the curing process, HERCULINER is exposed to atmospheric moisture which chemically changes it from a liquid to a tough, polyurethane membrane. HERCULINER will chemically bond to most clean, dry surfaces. These include, but are not limited to, concrete, wood, fiberglass, metal, rubber and sound-painted materials. It can be applied by roller, brush or spray.

USES
HERCULINER has many applications for commercial, military and civilian use. HERCULINER protects surfaces from foul weather elements and harsh chemicals, while creating a slip resistant surface on: ♦ truck beds ♦ pedestrian walkways ♦ ramps and loading docks ♦ bridges ♦ metal and wooden steps ♦ catwalks♦ ship decks ♦marine applications ♦ pleasure boats ♦ storage tanks ♦ floors ♦ handicap ramps ♦ tool handles ♦ vehicle undercoating ♦ curb ramps ♦ parking lots

ADVANTAGES

One-part	No mixing of components
Totally flexible	Never chips or flakes
Repairable	Bonds to itself
Protection	Waterproof, resistant to acid, chemicals, UV exposure, saltwater
Fast Drying	Very short intercoat time; foot traffic in 6-12 hours
Economical	Lasts for years; no need to remove old HERCULINER when recoating
Superior bonding	Will not peel with proper surface preparation

PHYSICAL PROPERTIES
Polyurethane

- Weight per gallon, pounds 8.6
- Viscosity, Kreb units 67-72
- Percent, solids by weight 72%
- Application temperature range 32°F - 95°F
- Application thickness, 2 coats dry 29-39 mils
- Flexibility Total flexibility
- Resilience Resilient in dry state
- Abrasion resistance
  Tabor wheel, 1000 gm load, 1000 cycles 30.5
- Fire resistance
  Flame spread ASTM E-162: 01
  Smoke generation ASTM E-662: 06
- Salt water resistance 100%
- Freeze-thaw resistance -60°F to +254°F
- Pot life 3 hours
- Shelf life minimum 1 year
- Flash time 1-1/2 – 3 hours
- Walk time 6 to 12 hours
- Time between coats ± 1 hour
- Full cure ± 4 days
- VOC 2.7 lbs. / gal.
- DOT Hazmat info Paint, 3 UN 1263 PG III

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PHYSICAL AND PERFORMANCE DATA

1. **Chemical resistance.** The following table gives the results of full immersion of HERCULINER for 7 days in some common chemicals:

CHEMICAL	SOLUTION %	RATING
Sulfuric Acid	2 10 20	Excellent Good Good
Acetic Acid	2 10 20	Excellent Excellent Good
Hydrochloric Acid	2 10 20	Excellent Excellent Good
Phosphoric Acid	2 10 20	Excellent Excellent Excellent
Sodium Hydroxide	2 10 20	Excellent Good Good
Ammonia	2 10 20	Excellent Good Good
SOLVENTS		
Gasoline	100	Fair
Acetone	100	Poor
Diesel	100	Good
Potable Water	100	Excellent
Salt Water	100	Excellent

Note: Solution percent represents percent of commercially supplied concentrate.
Sulfuric 98%, Phosphoric 85%, Hydrochloric 32%, Ammonia 29%

2. **UV Resistance** The following conclusions were reached after UV accelerated weathering tests by an independent tester.

   “500 hours of exposure resulted in a loss of gloss finish; however, there was no indication of surface cracking or any other surface deterioration.”

   “Physical testing of HERCULINER samples, tensile at break and elongation at break indicate that the 500-hour exposure has not affected the properties of the material.”

3. **Fire Resistance** The following burn test was independently carried out.

   A 500 micron film of HERCULINER was exposed to a Bunsen flame for:

   a. Two exposures of 5 seconds with removal for 5 seconds
   b. Continued exposure for 30 seconds

   The short (a) exposure gave a general scorching of the film with some evolution of smoke and liquid. the extended (b) exposure led to the combustion of the film. The film remained alight for a period of 15 seconds after removal from the flame. The flame did not spread beyond the region subjected to the flame. The region which had combusted was left charred but intact. Smoke generated was non-toxic.

4. **Impact Resistance** The following independent test was conducted:

   An aluminum panel was coated with HERCULINER. It was subject to front and reverse side impact by a blunt 0.5 cm^2, 1kg load over 1 meter fall. The film remained intact.

   "The product could be considered to have a good adhesion impact resistance."

5. **Coefficient of Friction** The following results were obtained when tested under conditions outlined in ASTM D1894-93.

SAMPLE	STATIC COEFFICIENT OF FRICTION		DYNAMIC COEFFICIENT OF FRICTION	
	Dry	Wet	Dry	Wet
1	0.95	1.41	0.91	1.36
2	0.95	1.41	0.95	1.27
3	0.98	1.41	0.91	1.32

6. **Tensile Strength / Elongation at Break**

	TENSILE STRENGTH	ELONGATION AT BREAK
Standard HERCULINER 7 day cure	16.5 MPa - 2,393 PSI (ASTM D638)	225%
After 500 hours UV accelerated aging	18.0 MPa – 2,610 PSI (ASTM D638)	225%