



## HYBRI-FLEX ES

### DESCRIPTION

HYBRI-FLEX ES is a 100% solids low odor, smooth, solid color system; composed of a 8 mil POLY-CRETE TF primer, 1/8" POLY-CRETE MD SL body coat with F-60 quartz broadcast, 60 mil DUR-A-GARD S/L topcoat, and a 3 mil ARMOR TOP topcoat yielding a total nominal system thickness of 190 mils.

### BENEFITS

- VOC Compliant
- ADA Compliant
- Contributes to LEED Credits
- Meets USDA, FDA and CFIA standards
- Hygienic - Does Not Harbor Bacteria
- High Chemical Resistance
- High Abrasion Resistance
- Wide Service Temperature Range
- Can Be Applied To 5-7 Day Old Concrete

### LIMITATIONS

This product is best suited for application in temperatures between 60°F and 85°F. Substrate must be clean, sound and dry.

### TYPICAL USES

HYBRI-FLEX ES is designed to protect concrete, polymer reinforced screeds, mild steel and water resistant plywood from chemical attack, corrosion, impact and thermal shock. It is also unaffected by freeze/thaw cycles.

- Main Traffic Aisles
- Automotive Service Areas
- Loading Docks
- Aircraft Hangars
- Storage Areas
- Manufacturing Areas

### COLORS

HYBRI-FLEX ES is available in variety of colors. Refer to the Color Selection for the range of standard colors.

### PACKAGING & STORAGE CONDITIONS

POLY-CRETE MD SL is available in pre-measured kits that consist of resin, hardener and aggregate. DUR-A-GARD SL epoxy is available in 1 and 5-gallon pails and 50-gallon drums. The fillers are available in 50 lb bags and the aggregate is available in 100 lb bags. ARMOR-TOP is provided in pre-measured kits.

HYBRI-FLEX ES components must be stored dry. Do not allow resins to freeze. Do not store near open flame or food. Every POLY-CRETE product will be shipped with a lot number on the label. The first two digits indicate the year; the second two show the month, the third two indicate the day. The shelf life is 6 months from the date on the label in the original unopened container.

### SURFACE PREPARATION

This product requires preparation in order to perform as expected. Surface must be profiled, clean, dry, oil free and sound. Please refer to the Surface Preparation Guide on our website for more information.

### APPLICATION METHOD

POLY-CRETE MD SL is applied to a properly prepared area at 55 SF/kit using a 1/2" "V" notched squeegee. The freshly placed material is then loop rolled into which F-60 quartz aggregate is broadcast to excess. Allow a minimum of 6 hours for the Base Coat to cure before sweeping. Apply DUR-A-GARD S/L at 60 mils in the same color as the specified ARMOR-TOP. Finish with a top coat of pigmented ARMOR-TOP.

### GUIDE SPECIFICATIONS

This product is part of the DUR-A-FLEX family of polymer systems. Please contact DUR-A-FLEX for complete three part guide specs.

### MOISTURE CONCERNS

Normal limits for moisture vapor transmission for Hybri-Flex floor systems are 20 lbs./1,000 sq. ft./24 hour using the calcium chloride test per ASTM F-1869 or 99% relative humidity using in-situ Relative Humidity Testing per ASTM F-2170. Please refer to the Floor Evaluation Guidelines at [www.dur-a-flex.com](http://www.dur-a-flex.com) for complete details

# HYBRI-FLEX ES

## TECHNICAL INFORMATION

Physical Property	Test Method	Result
Hardness (Shore D)	ASTM D-2240	75-80
Compressive Strength	ASTM D-695 ASTM C-579	17,500 psi 12,500 psi
Tensile Strength	ASTM D-638 ASTM C-307	4,000 psi 2,600 psi
Tensile Elongation	ASTM D-638	7.50%
Flexural Strength	ASTM D-790 ASTM C-580	6,250 psi 4,500 psi
Flexural Modulus of Elasticity	ASTM D-790	$6.2 \times 10^5$
Linear Expansion	ASTM D-696	$2 \times 10^{-5}$
Bond Strength to Concrete	ASTM D-4541	400 psi substrate fails
Indentation	MIL D-3134	.025 MAX
Impact Resistance	ASTM D-2794	>160
Water Absorption	ASTM D-570	0.04%
Heat Resistance Limitation		140°F - 200°F
Flammability	ASTM D-635	Self Extinguishing
Flame Spread/NFPA 101	ASTM E-84	Class A
Noise Reduction Coefficient	ASTM C-423	0.05
Taber Abrasion Resistance A&B	ASTM D 4060, 1000g load, 1000 cycles, CS-17 wheel after full cure	<u>Gloss finish</u> <u>Satin finish</u> w/grit - 4 mg. loss      w/grit - 8 mg. loss no grit - 10 mg. loss    no grit - 12 mg. loss
Coefficient of Friction Smooth	ASTM D-2047	0.7
VOC Content		5 g/l; pigmented Armor Top <100 g/L

### CHEMICAL RESISTANCE

HYBRI-FLEX ES has excellent resistance to organic and inorganic acids, alkalis, fuel and hydraulic oils, as well as aromatic and aliphatic solvents. Refer to the chemical resistance chart or consult with our technical staff for non-listed materials.

### CLEANING

Regular scrubbing will maintain these systems in serviceable condition. However, certain textures and service environments require specific procedures. Please refer to the master Cleaning Guide on our website for more information.

### CAUTION

Read, understand and follow Material Safety Data Sheets and Application Instructions of this flooring system prior to use. Follow the Hazardous Materials Identification System labeling guide for proper personal protective equipment to use when handling this product. Use only as directed

*Before using any DUR-A-FLEX, Inc. product, be sure the Material Safety Data Sheet is read and understood.*