

## **POLY-CRETE MDC**

### **DESCRIPTION**

POLY-CRETE MDC is a 100% solids aromatic cementitious urethane system with a vinyl chip broadcast. This system is installed at 3/16 – ¼ inch thickness. This should be determined by service, cleaning temperatures, severity of traffic, point impact and loadings. POLY-CRETE MDC uses Macro or Micro colored chips and is top coated with DUR-A-FLEX epoxy, urethane or methyl methacrylate depending on performance requirements.

### **BENEFITS**

- VOC Compliant
- ADA Compliant
- Leed Credit Points Available
- Meets USDA, FDA and CFIA Standards
- Hygienic- Does Not Harbor Bacteria
- High Chemical Resistance
- High Abrasion Resistance
- No Priming
- Wide Service Temperature, -100 to 220 F
- Can be Applied To 7-14 Day Old Concrete

### **LIMITATIONS**

This product is best suited for application in temperatures between 50°F and 85°F. Substrate must be clean, sound and dry.

### **TYPICAL USES**

POLY-CRETE MDC is designed to protect concrete from chemical attack, corrosion, impact and thermal shock. It is also unaffected by freeze/thaw cycles. Typical areas of application:

- Pharmaceutical Plants
- Bottling plants
- Production & Manufacturing Areas
- Cage Wash Rooms

### **COLORS**

The decorative colored chips that are used in the POLY-CRETE MDC system are available in a MACRO and MICRO size. Refer to the Color Selection Chart for the standard chip blends. Customs blends are available.

### **PACKAGING/STORAGE**

POLY-CRETE MDC is available in pre-measured kits that cover 32 square feet at 3/16 inch for ¼ inch finished thickness. The

Decorative chips are available in 10lb or 40lb boxes. POLY-CRETE MDC must be stored dry. Do not use partial bags of aggregate. Do not allow resins to freeze. 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 will be 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. It is recommended that perimeter edges of the floor area and doorways be keyed to produce a cross section ¼" deep by ¼" wide running at 6" away from and parallel to doorways, drains and walls. Please refer to the master Surface Preparation Guide on our website for more information

### **APPLICATION METHOD**

POLY-CRETE MDC is applied at the required thickness using a steel bladed trowel, pin rake, "V" notched trowel or cam rake. The freshly placed material is spiked rolled into which the colored chips are broadcast to excess. Allow a minimum of 8 hours for the base coat to cure before sweeping, brushing and vacuuming. Apply the desired topcoat(s) to achieve the required finish. Use T.C. aggregates for better flow and leveling performance.

### **GUIDE SPECIFICATIONS**

This product is part of the DUR-A-FLEX family of polymer systems. Please refer to the master Specifier's Guide for complete three part guide specs.

### **DRAWINGS AND DETAILS**

Standard CAD drawings and details are available for coves, drains, breaches, transitions, etc. Please refer to the Master Drawings and Details guide for actual drawings.

### **JOINT GUIDELINES**

Refer to the Joint Guidelines for complete details on our website.

### **MOISTURE CONCERNS**

Normal limits for moisture vapor transmission for Poly-Crete 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.

**CHEMICAL RESISTANCE**

POLY-CRETE MDC has excellent resistance to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents.

**CLEANING**

This product is considered to be a low maintenance flooring solution, however, certain textures and service environments require specific procedures. Please refer to the master Cleaning Guide on our website for more information

POLY-CRETE MDC WITH DUR-A-GLAZE #4 AND ARMOR TOP		
TECHNICAL INFORMATION		
Cure Time @ 70°F Full Service		
Light Traffic		8-10 hours
Light Wheel Traffic		16 Hours
Heavy Duty Traffic		48 Hours
Full Service		3-5 Days
Color		Refer to Macro and Micro Chip Color Chart
Pot Life - 1 gallon @ 70°F		15 minutes
Adhesion to Concrete		> 400 psi, concrete fails before loss of bond
Service Temperature		-100 to 220°F
Physical Property	Test Method	Result
Hardness (Shore D)	ASTM D-2240	75-80
Compressive Strength	ASTM C-579	12,500 psi
Tensile Strength	ASTM D-638	4,000 psi
Flexural Strength	ASTM D-790	6,250 psi
Adhesion to Concrete	ASTM D-4541	>400 psi substrate fails
Impact Resistance	MIL-D-3134	>160 in-lb
Abrasion Resistance CS-17 Wheel 1000 GM Load 1,000 Cycles	ASTM D-4060	4 mg loss (gloss finish with grit)
Static Coefficient of Friction	ASTM D-2047	>0.6
Heat Resistance Limit		200°F
Water Absorption	ASTM D-570	0.04%
VOC Content		0 g/L
Indoor Air Quality		Compliant to CA 01350 - CDPH v1.1-2010

**IMPORTANT!**

Before using DUR-A-FLEX products, read and understand its accompanying Safety Data Sheet & Application Instructions for important safety information.

STANDARD TERMS AND CONDITIONS OF SALE, INCLUDING STANDARD WARRANTY APPLY - VISIT [DUR-A-FLEX.COM](http://DUR-A-FLEX.COM) FOR THE LATEST VERSION