

**DUR-A-FLEX® Inc.**EPOXIES • MMA • URETHANES  
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## CRYL-A-SHIELD

### GENERAL

CRYL-A-SHIELD is a 100% reactive, fast curing, methyl methacrylate (MMA) based acrylic system. It is formulated clear or pigmented as a thin film 12-50 mils (0.25-1.25 mm) coating/sealer. A typical system consists of 1-3 coats. CRYL-A-SHIELD is used to seal and eliminate concrete dusting, increase substrate strength and aesthetic considerations. Surface finish can be smooth or slip resistant. This system cannot be thinned with solvents.

### COLORS

CRYL-A-SHIELD is available clear or in 15 standard colors. Please refer to the Standard Color Chart @ <http://www.dur-a-flex.com/Documents/Standard%20Color%20Chart.pdf>. Custom colors are available upon request.

### TYPICAL USES

- Traffic Aisles
- Light Manufacturing
- Warehouses
- Containment Areas
- Textiles
- Sidewalks & Stairs
- Stadiums
- Parking Decks

### SURFACE PREPARATION

The substrate must be dry and free of oil, grease, dirt, bituminous and other contaminants. Unsound concrete and laitance should be removed by appropriate mechanical means. Note, if shot blasting, be careful of blast overlap lines as they may be visible through the coating. Please refer to the DUR-A-FLEX "Surface Preparation Guide" for detailed instructions.

### MOISTURE CONCERNS

Please refer to the [Floor Evaluation Flow Chart](#) in the Contractor's Center of our website for a step-by-step process to determine the condition of the concrete.

### BOND TEST

Prior to application of the primer, Bond Tests shall be conducted to determine adequacy of substrate preparation. The bond of the primer to the substrate should be greater than the tensile strength of the substrate. A successful test shows substrate material and sheared aggregate adhering fully to the sample. If only laitance or a small amount of the substrate is

attached, further preparation is required. Refer to the "Bond Test Guide" for procedure.

### VENTILATION

Prior to any application, proper "negative pressure" ventilation must be established. Refer to the "CRYL-A-FLEX Ventilation Guidelines" for details.

### APPLICATION METHOD

All MMA resins require the addition of CRYL-A-CURE (BPO) to cure. To determine the correct amount of BPO necessary, refer to the CRYL-A-FLEX Mixing Chart. BPO usage is a function of the material and substrate temperature. **Therefore, the temperature of the floor must be measured prior to any mixing or application of material.**

Due to the fast cure of the material, only make enough material to be applied in 5 minutes. A typical batch size of primer or topcoat is 1 gallon (4 liters). Warmer conditions may dictate a smaller batch size. The primer is applied with a brush or roller at 80 - 125 Sq Ft per gallon (2-3 m<sup>2</sup> per liter) to achieve an even, puddle free surface. Substrates that are very porous may require an additional coat. Roller coats are applied with 1/2 inch (13 mm) nap rollers. Rough substrates may require a longer nap to avoid puddles. Rough surfaces and holes must be patched with the appropriate CRYL-A-FLEX system before the body coat is applied. Based on the temperature, add the proper amount of BPO to the CRYL-A-PRIME P-101. Mix for 30 - 60 seconds or until the BPO is completely dissolved. Pour an even ribbon of material out onto the floor and roll to the proper thickness. The primer will cure tack free in 30 - 60 minutes.

If CRYL-A-BOND is used with primer, the next coat must be applied within 16 hours. Failure to do this could result in inadequate inter-coat adhesion.

One or two coats of CRYL-A-PRIME P-101 or one of the CRYL-A-TOP resins are roller applied at 80-125 Sq Ft per gallon per coat (2-3 m<sup>2</sup> per liter).

The best results are achieved when you order the resin pre-pigmented. Follow this procedure if the material is to be pigment on site: Use a clean 5-gallon (19 liter) plastic pail and add 4 gallons (15.2 liter) of resin. Add 8 ozs (volume) of pigment per gallon (90 ml per liter) of resin. Mix with a high-speed drill and a 3.5 or 5 inch (100 mm) Jiffler blade.

Mix for 1 minute, , add the proper amount of CRYL-A-CURE, mix for 45 seconds and apply.

For slip resistant surfaces a random broadcast of silica sand, emery, silica carbide or aluminum oxide is broadcast into the uncured resin. The typical particle size (depending on requirements) is in the 10-36 mesh size (2-0.5 mm) range. The typical broadcast rate is 2 -5 lbs of grit per 100 Sq Ft (0.1-0.2 kg per m<sup>2</sup>) per coat.

#### **CURE**

Each application in the CRYL-A-SHIELD system will cure in 45-60 minutes. At this time the floor is fully functional. **IMPORTANT, DO NOT APPLY THE TOPCOAT TOO THIN.** It may not cure properly, it will pick up dirt and wear prematurely.

#### **PACKAGING**

CRYL-A-SHIELD resins are available in 5-gallon (19 liter) pails and 50-gallon (190 liter) drums. CRYL-A-CURE is available in 1-gallon (3.8 liter) cans, 5-gallon (19 liter) pails and 55 lb (25 kg) boxes.

#### **TECHNICAL INFORMATION**

CRYL-A-SHIELD is part of a family of repair and wearing materials supplied by DUR-A-FLEX. If you require further information on this or any of our other products please contact our Technical Department.

#### **CLEANING**

CRYL-A-SHIELD is considered to be a low maintenance product. Please refer to the master “**Cleaning Guide**” for more detailed cleaning instructions.

#### **STORAGE CONDITIONS**

Store in a cool and dry area below 85 F (30 C), out of direct sunlight. Do not store near open flame or food. The shelf life is 6 months from ship date in the original unopened container.

#### **CAUTION**

**CRYL-A-SHIELD resins are flammable liquids in their uncured state. Smoking, open flames or sparks should not be permitted during the handling of the product.** Workers should wear protective clothing consisting of splash-proof goggles, impermeable gloves and where exposure limits are exceeded, organic vapor respirators. Air powered or explosion proof mixing equipment is required. Adequate cross ventilation should be provided and explosion proof fans may be required. All foodstuffs must be removed during application of the system. **Follow the Hazardous Materials Identification System labeling guide for proper personal protective equipment to use when handling this product. Use only as directed. KEEP OUT OF REACH OF CHILDREN. If substrate and/or material temperature is above 90 F (32 C), Do Not apply material.**

#### **JOINT GUIDELINES**

Refer to the [Joint Guidelines](#) for complete details on our website

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