



CRYL-A-SHIELD

PRODUCT DESCRIPTION

CRYL-A-SHIELD is a 100% reactive, fast curing, high strength; methyl methacrylate (MMA) based acrylic flooring system. It is formulated clear as a thin film 12-50 mils (0.25-1.25 mm) coating/sealer. Typical systems consist 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.

BENEFITS

- VOC compliant, < 100 g/L
- Excellent bond to substrate
- Bond test allows on site quality assurance
- Low viscosity, good surface penetration
- Fast cure, less than one hour
- NSF Registered
- Indoor and outdoor applications
- UV Resistant
- Easy application to vertical and horizontal surfaces
- Seamless, no cold joints, always bonds to itself
- Meets USDA/FDA and CFIA requirements
- Use over a wide temperature range, even below freezing
- Available with Bio-Pruf® antibacterial and fungal additive

TYPICAL USES

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

COLORS

CRYL-A-SHIELD is available clear only.

PACKAGING & STORAGE CONDITIONS

CRYL-A-SHIELD is 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. 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.

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. Refer to the DUR-A-FLEX Surface Preparation Guide on our website for detailed instructions.

APPLICATION METHOD / SPREAD RATE

CRYL-A-PRIME should be applied by brush or roller at 80-125 Sq Ft per gallon (2-3m² per liter) depending on the porosity of the substrate. One or two coats of CRYL-A-PRIME or one of the CRYL-A-TOP products are roller applied at 80-125 Sq Ft per gallon (2-3 m² per liter) per coat. The appropriate amount of CRYL-A-CURE is determined by the use of the CRYL-A-FLEX Mixing Chart which can be found on our website.

JOINT GUIDELINES

Refer to the Joint Guidelines for complete details on our website

MOISTURE CONCERNS

Normal limits for moisture vapor transmission for MMA floor systems are 5 lbs./1,000 sq. ft./24 hour using the calcium chloride test per ASTM F-1869 or 85% 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 for complete details.

BOND TEST

Prior to full application of the primer, bond tests shall be conducted to determine adequacy of substrate preparation and bond. The bond of the primer to the substrate should be greater than the tensile strength of the substrate. A proper Bond Test will result in concrete and fractured aggregate being attached to the specimen. If only laitance or a small amount of the substrate is attached further preparation is required.

The procedure is as follows:

Pour 6 ounces of primer in a plastic cup. *If required*, add $\frac{3}{4}$ of an ounce of CRYL-A-BOND additive. Add $\frac{1}{4}$ ounce of CRYL-A-CURE (@ 70F) and stir for 15 to 30 seconds. Add enough Q-11 (1 1/2 times the volume of resin) to achieve a very WET slurry. Note: If this mix is too dry it will not leave enough primer to soak into the substrate. Excessive liquid on the surface when you stop mixing is a good indication that the mix is appropriately “wet”. Place patties of this mixture on the substrate.

Stir the mixture in-between placing each patty or the first patties will be very wet and the last patty will be too dry. Allow to cure about 1 hour. The patty is fully cured when it has cooled to substrate temperature.

Remove with a hammer and chisel. Look at the bottom of the patty. You should have removed 1/8” to 1/2” inch of concrete. If there is nothing or only laitance, this is an indication that further preparation is necessary.

VENTILATION

Prior to any application, proper “negative pressure” ventilation must be established. Refer to the CRYL-A-FLEX Ventilation Guidelines on our website for details.

CURE

Each application in the CRYL-A-SHIELD system will cure in 45-60 minutes. At this time the floor is fully functional.

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 other of our products please contact our Technical Department.

PHYSICAL CHARACTERISTICS

Percent Reactive	100%
VOC	<100 g/L
Pot Life @ 68 F (20 C)	10-20 minutes
Cure Rate @ 68 F (20 C)	25-45 minutes
Recoat Time	45-60 minutes
Tensile Strength	3,550psi (24.5 N/mm ²)
Tensile Modulus	400,000 psi (2,760 N/mm ²)

CAUTION

Adequate cross ventilation should be provided. 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. **If substrate and/or material temperature is above 90 F (32 C), Do Not apply material.**

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