



CRYL-A-QUARTZ - EXTERIOR APPLICATION

GENERAL

CRYL-A-QUARTZ is 100% reactive, fast curing, high strength, methyl methacrylate (MMA) based, acrylic flooring system. A 1/16 inch overlay system is composed of primer, double broadcast of DUR-A-FLEX decorative flakes and topcoats. This system cannot be thinned with solvents.

COLORS

CRYL-A-QUARTZ uses DUR-A-FLEX decorative Q-28 aggregate. Color options are standard colors and custom color blends. Refer to the CRYL-A-FLEX Color Chart on our website.

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.

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 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 ¾ of an ounce of CRYL-A-BOND additive. Add ¼ 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.

APPLICATION METHOD / SPREAD RATE

Read this section, then refer to chart on page 3 for spread rates.

All MMA resins require the addition of CRYL-A-CURE (BPO) to cure. The proper amount of BPO can be found on the CRYL-A-FLEX Mix Chart on our website. 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 that can be properly applied based on floor layout and manpower. A typical batch size of primer or topcoat is usually 1 gallon (4 liters). Hot and/or windy conditions may dictate a smaller batch size. All MMA coats are applied with a brush and roller to achieve an even, puddle free surface. Substrates that are very porous may require an additional primer coat. Roller coats are applied with 3/8 or 1/2-inch (13 mm) nap rollers.

The application spread rate and material thickness will vary based on wind speed and temperature. Refer to the chart on page 3 to determine the proper rate and thickness.

Based on the temperature, add the proper amount of BPO to the CRYL-A-PRIME P-101. Mix for 45 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 coat will cure tack free in 30 - 60 minutes and must be fully cured before applying subsequent coats.

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.

The first coat of CRYL-A-GLAZE G-201 is applied by brush and roller to achieve an even, puddle free surface.

Q-28 is broadcast into the wet material at 0.5 lbs. per Sq Ft. **Do not over broadcast, only apply enough sand to cover the wet resin**, over broadcasting can result in the resin curing properly. Keep Broadcast 3 feet back from wet edge. After the material has cured, sweep/blow off the excess/loose chips

Apply a second coat of CRYL-A-GLAZE G-201 by brush and roller to achieve an even, puddle free surface. Aggregate is broadcast at 0.4-0.5 lbs. Per Sq Ft. Let material cure and again remove all excess aggregate.

The cured system is top coated with two coats of CRYL-A-TOP T-303 sealer and is applied at 80-100 Sq Ft per gallon by brush and roller to achieve an even, puddle free surface.

Do not over-dose the Cryl-A-Cure. Excessive BPO will result in discoloration of the topcoat.

For outside applications:

The chart below details the proper mil thickness, spread rates and working time based on wind speed.

Each wet film thickness (WFT) and spread rate indicated on the chart will yield a dry film thickness (DFT) of approximately 16 mils.

The **working time** is the maximum application time available for placement and final back-roll or cross-roll.

This chart is based on a temperature of **70°F**. Working times will be slightly longer at lower temperatures and slightly shorter at higher temperatures.

Never apply any material when the temperature is **90°F** or above or the wind speed is higher than 7 mph.

It is important to anticipate if the working area will be exposed to sunlight during the application because a rapid increase in temperature will occur on the substrate.

CURE

CRYL-A-QUARTZ components will cure in 40-60 minutes. The floor is fully functional one hour after completed application. **IMPORTANT, DO NOT APPLY THE TOPCOAT TOO THIN.** It will not cure properly and will pick up dirt and wear prematurely.

JOINT GUIDELINES

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

PACKAGING

CRYL-A-QUARTZ 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. DUR-A-FLEX decorative aggregate is available in 50 lb (22.7 kg) bags.

STORAGE CONDITIONS

Store in a cool and dry place 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 containers.

CAUTION

CRYL-A-QUARTZ 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, an organic vapor respirator should be used. Air powered or explosion proof mixing equipment is required. Adequate cross ventilation should be provided, and if necessary, explosion proof fans may be required. All foodstuffs must be removed during application of the system.

As with all chemical products, individuals may have different reactions to exposure to specific products. This is dependent upon many factors, including the individual's personal characteristics, the size of the installation, the ventilation available, the intensity of the exposure or the length of the exposure. Individuals may experience discomfort during the installation process of one product, but not another.

In some cases this is experienced as a skin irritation and in others it is experienced as an inhalant irritation. Typically, it disappears once the exposure is eliminated. In some cases people can become "sensitized" to a product and experience the discomfort every time there is exposure without Personal Protective Equipment ("PPE").

To protect yourself from various exposures or discomfort during the mixing and application of our products, we recommend covering exposed skin including, using gloves, long sleeves, safety glasses and a respirator such as the 3M 8577 P95 Universal Disposable Carbon Respirator or a cartridge respirator.

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.

REGISTRATION FORMS

Every pool deck installation must be registered with a Dur-A-Flex, Inc. Sales representative at the completion of installation and before the pool deck is open for use. These forms can be found in the Technical Catalog in the Master Documents section or on our website.

CLEANING

Warning

Pool decks are predominately wet surfaces that will require daily cleaning with E-Z Clean detergent to aid in the removal of dirt, grime, debris, lotions, soaps and oils.

Product & Application	Wind Speed, 70°F	WFT & Spread Rate	Spread Rate over Q-28	Spread Rate over Q-11	Working Time to back-roll
P-101	3 mph	18 mils, 90 square feet per gallon	N/A	N/A	4 minutes
	5 mph	20 mils, 80 square feet per gallon	N/A	N/A	3 minutes
	7 mph	22 mils, 72 square feet per gallon	N/A	N/A	2 minutes
G-201 1 st broadcast	3 mph	22 mils, 72 square feet per gallon	N/A	N/A	9 minutes
	5 mph	25 mils, 65 square feet per gallon	N/A	N/A	8 minutes
	7 mph	25 mils, 65 square feet per gallon	N/A	N/A	7 minutes
G-201 2 nd broadcast	3 mph	N/A	65 square feet per gallon	46 square feet per gallon	9 minutes
	5 mph	N/A	60 square feet per gal.	41 square feet per gallon	8 minutes
	7 mph	N/A	60 square feet per gal.	41 square feet per gallon	7 minutes
T-303, 1 st topcoat	3 mph	N/A	65 square feet per gallon	46 square feet per gallon	10 minutes
	5 mph	N/A	60 square feet per gallon	41 square feet per gallon	9 minutes
	7 mph	N/A	60 square feet per gallon	41 square feet per gallon	7 minutes
T-303, 2 nd topcoat	3 mph	N/A	72 square feet per gallon	72 square feet per gallon	10 minutes
	5 mph	N/A	65 square feet per gallon	65 square feet per gallon	9 minutes
	7 mph	N/A	65 square feet per gallon	65 square feet per gallon	7 minutes

Without a regular maintenance program to remove the accumulation of the above mentioned contaminates, there is an increased risk of slip and fall accidents.

To remove hard water deposits (lime scale), periodic use of an acid based cleaner such as “Lime Away” can be used.

Our local sales representative will provide you with a complimentary one gallon sample of E-Z Clean detergent to assist your housekeeping efforts.

For proper cleaning instructions, please refer to our Cleaning Guidelines in the Contractor Center on our

website. A floor cleaning training video is also available on the website.

Additional quantities of E-Z Clean detergent may be purchased by calling Dur-A-Flex at (800) 253-3539.

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