



TECHNICAL BULLETIN

Concrete & Masonry Information for the Professional

Methyl Methacrylate Bond Test Instructions

Every methyl methacrylate flooring installation should begin with bond tests. The foundation of a long lasting polymer floor begins with proper surface preparation.

Conducting bond tests during the surface prep phase of an installation provides qualitative tangible results that can predict potential bonding issues in less than 1 hour. Bond testing is expected on all applications and it is recommended that the contractor label and keep the results of his testing through the warranted life of the floor.

Bond tests should be performed shortly after surface preparation begins. This will allow time to make adjustments to preparation methods and procedures based on results. One bond test patty should be placed every 500 – 1000 sq. ft. with a minimum of three for any job regardless of size. Be sure to place a few bond test patties in less than ideal locations including areas inaccessible to shot blasting. As an example areas close to perimeter walls and in corners where diamond grinding or other methods may have been employed are ideal.

ChemMasters recommendation for surface preparation

All seamless polymer flooring systems including methyl methacrylates, require a clean, dry, substrate free of oils, grease, wax, solvents, paints, curing membranes, and other contaminants. Concrete must be shot blasted or scarified to provide an open surface free of fines, laitance, and unsound concrete.

Instructions:

- 1) Mix approximately 6 ounces of **Duraguard 400 mMa** primer with approximately 1 pound of coarse (16 – 20 mesh), dry, quartz sand. The resulting mixture should be a wet, trowelable consistency.
- 2) Add approximately ½ ounce (slightly more or less depending on substrate temperature) of **Duraguard mMa Catalyst** and mix well for 30 seconds.
- 3) Apply 3” – 4” diameter patties, ¼” – ¾” thick, to properly prepared, dust free substrate at strategic areas as described above. Allow patties to fully cure. They must be hard and cool to touch before proceeding to the next step. This will take approximately 40 – 60 minutes @ 70° F.
- 4) Remove patties using a 3 pound sledgehammer and a 3” mason’s chisel. Hold the chisel at 30% - 45% angle when removing the patties.
- 5) If the level of surface preparation is adequate, the underside of the removed patties should have concrete with fractured aggregate attached.
 - a) If only laitance or fines is attached additional, perhaps a more aggressive preparation is required.
 - b) If the underside side of the patty is not cured (tacky), this may indicate the presence of contaminants in the concrete. Contact ChemMasters Technical Service for assistance on how to proceed.
 - c) If additional surface preparation still does not produce good bond tests, contact ChemMasters Technical Service.