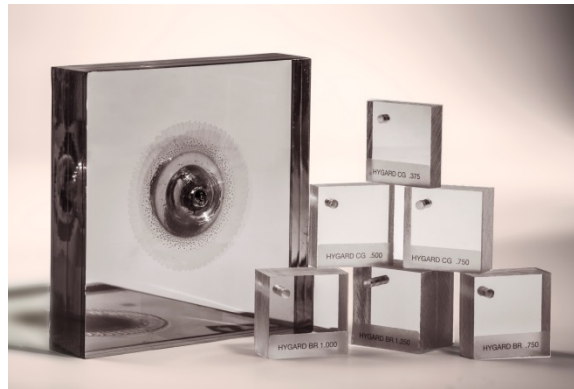


PLASKOLITE

EDGE COATING

HYGARD® BR and CG LAMINATES



Environmental **S**tress **C**racking (**ESC**) is a symptom in which a plastic sheet has been degraded by a chemical agent while under stress and it is a common cause of plastic component failure.

Hygard® products are highly engineer laminates which have been thoroughly tested and rated for use in ballistic and/or forced entry applications. While the surface of Hygard laminates are hard coated with an abrasion and chemically resistant layer, the edge of the laminate is trimmed to size and consequently uncoated and exposed to potential chemical or weathering attack. Protecting the edge of the laminate can prolong its life while maintaining essential structural and safety characteristics.

Covestro Technical Services has tested Momentive TSE399-C, a one-component, fast cure, non-corrosive (MIL-A-46146A) silicone adhesive on Hygard products and found the silicone to be a useful tool in protecting the edge of polycarbonate laminates.



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The flowable, abrasion resistant, RTV silicone sealant cures on exposure to atmospheric moisture to form a soft silicone rubber. The silicone has a very high and low working temperature range and boasts exceptional resistance to heat, cold, moisture, UV degradation, ozone, and some chemicals including common cleaning solutions such as ammonia and sodium hydroxide based cleaning products.

Momentive TSE399-C offers outstanding adhesion to Hygard laminate products and its self-leveling properties provides a soft consistency of protection against mechanical and thermal shock. The product dries to the touch within several hours and fully cures within 72 hours. A typical 100g tube of sealant can provide edge coverage to multiple windows at a time.

Momentive RTV Silicone TSE399-C offers a reasonably priced, chemically resistant edge protection against common field chemicals and can be quickly applied using a small, soft paint roller.

RS Hughes is a national distributor for Momentive TSE399-C silicone sealant. Contact information: <http://www.rshughes.com/> phone: 1-877-774-8443.

Solvents: Polycarbonate is not resistant to Methylene Chloride, Benzene, Toluene, Chloroform, Xylene, Methyl Ethyl Ketone (MEK) and many other forms of organic solvents. Prolonged exposure to these chemicals will crack polycarbonate and also act as a swelling agent which can lead to delamination due to the loss of adhesion between the TPU film and polycarbonate interlayer.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.

Do not intentionally expose TUFFAK polycarbonate to non-compatible chemical agents.

DISCLAIMER:

The chemical resistance of TUFFAK® depends on the concentration of the substance, temperature, contact time, and the internal tension level of the polycarbonate sheet due to fabrication and lamination.