Solarez Extreme Repair Putty

77390

TYPICAL LIQUID PROPERTIES

Viscosity, Brookfield, cPs thixotropic putty

Appearance translucent straw

DOT Flammability Rating, °F 76-100

Monomer content % 35

SOLAREZ 77390 is a thixotropic putty composed of our vinyl ester epoxy resin, reinforced with both ceramic and glass fibers. It possesses outstanding corrosion resistance as well as having robust mechanical specs that far exceed those of polyesters. Ceramic fibers impart higher heat tolerance as well as increasing the putty's overall adhesion as these fibers' denier is quite thin and allow for good mechanical "tooth". Glass fibers impart good fill & formability into voids that when cured, can be machined or tapped. The putty cures (<5 min.) upon exposure to the safer UVA light (365-400 nm) amply available in natural sunlight and low-wattage fluorescent suntan bulbs.

Epoxy vinyl esters have withstood the world's most vicious chemical environments. They are commonly used to fabricate chemical containment tanks, withstanding harsh acid or alkali environments as well as solvents, heat and pressure. Whereas you might not yourself have a need to guard against harsh chemical containment, common lay public uses include fabrication/repair of high-performance fuel-tanks housing nitro or alcohol fuels, containment and support brackets for acid batteries and long-term service life in marine environments.

In general, mechanical properties can be summed up in a few categories; enhanced impact resistance, increased tensile strength, increased adhesion to even the most stubborn substrates and outstanding abrasion resistance. Solarez Vinyl Ester Epoxy putty is an outstanding rough surface primer and because it is a hybrid epoxy ester, it is perfectly compatible with polyester, urethanes, epoxies and acrylates in combination layers.

Conveniently, curing commences within 30 seconds of exposure to mid-day sunshine in nonpolar latitudes. Ambient temperatures as low as -20°F or as high as 120°F have little effect on cure time or physical properties of Solarez. Another phenomenon attributed to UV curing is the ability to start and stop the reaction when so desired. You may cure the resin for approximately one minute until it has reached "B-Stage" (when the putty is firm) but not yet hard. At this point,the putty is easily cut by a razor blade. When the excess material is cleaved away, the user can "resume" curing by exposing it to sunlight again.

continued

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Finally, A word about UV Curing: The mechanicals of high performance 2-part epoxies are predicated on the condition that they had a perfect stoichiometric mixture (ratio) in laboratory conditions, with post-cure schedules of hours in autoclaves. Standard (MEKP-cured) Vinyl Ester Epoxies are much easier to use but still require mixing and an ambient temperature of a bare minimum of 55°F and not exceeding 90°F. Solarez is a one part system that requires no measuring, mixing or special heat & pressure curing schedules to achieve optimal crosslinking. In fact, Solarez can cure in a range of -20°F to 120°F with little or no variance in cure

Handling: SOLAREZ Vinyl Ester Epoxy resin contains ingredients that could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and/or clothing should be worn. For important health, safety and handling information, consult the MSDS before using this product.

Storage: Store @ temperatures below 80°F. keep away from heat, sparks and open flame. handle only in diffused light -- never in direct sunlight. Direct sunlight will cause rapid curing of resin.

Solarez is available in polyester, epoxies, urethanes as well as other resin families.

TYPICAL PROPERTIES OF CURED CASTING @ 77°F
(guidance only)

Tensile strength (psi) ASTM D-638	18,000
Tensile elongation, % ASTM D-638	3-5
Compressive strength, psi	24,000
Barcol hardness ASTM D-2583	42
Heat deflection temp, °F	225