

PRODUCT DATA SHEET

SOLAREZ Vinyl Ester Gloss Resin w/ Nano Quartz 71x93

SOLAREZ 71x93 Vinyl Ester Epoxy Gloss Resin is a low styrene emission UV-curable vinyl ester resin with surfacing agent and nano-quartz particles added for a dry surface cure with enhanced abrasion and heat resistance. It possesses outstanding corrosion resistance properties as well as having robust mechanical specifications that far exceed those of polyesters. It rapidly 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 Sanding resin is recommended to cap off a lamination schedule of vinyl ester, polyester, urethane or 2-part epoxy because it is compatible with all of the aforementioned

Conveniently, curing commences within 30 seconds of exposure to mid-day sunshine in non-polar 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.

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 characteristics.

TYPICAL LIQUID PROPERTIES

Viscosity, Brookfield, cPs	150
Appearance	slight straw
DOT Flammability Rating, °F	76-100
Monomer content %	35

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

Tensile strength (psi) ASTM D-638	12,000
Tensile modulus, (psi) ASTM D-638	530,000
Tensile elongation, % ASTM D-638	5-6
Flexural strength psi	21,000
Flexural modulus, (psi x 10 ⁵)	5.4
Compressive strength, psi	17,000
Barcol hardness ASTM D-2583	35
Heat deflection temp, °F	225

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

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.