A low exotherm, low shrinkage, crystal clear, orthophthalic polyester resin that is ultraviolet curable or MEKP catalyst cured or both. It can rapidly cure (<3 min) upon exposure to the safer UVA light (365-400 nm) amply available in natural sunlight and low-wattage fluorescent suntan bulbs. It can also be cured slowly by addition of MEKP catalyst where it can cure bowling-ball sized parts without over exotherming. It is enhanced with UV stabilizers to greatly improve its weatherability. An excellent choice for table-tops, jewelry castings and rapid-prototyping.

UV-Casting of parts takes into consideration many things; amount (mass) of resin to be cured, ambient temperature and surface contour of the part you want the resin to cure around. If [UV] light can reach all surfaces of your part and all the resin in the casting, you can solarcure with UV light only and it will take about 3 minutes - even at freezing temperatures. However, if your part has dark colors or contours that shadow light penetration, you can “dual cure” by premixing a mild amount (1%) of MEKP catalyst.

If cured completely by MEKP catalyst, curing will require approximately 30-45 minutes.

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.

**ADVISORY:** During the curing of large masses of resin (more than a 4oz cup), quite a bit of heat can be generated and heat can cause distortion & yellowing, even smoldering & flames. Solarez® is specially formulated to resist over exotherming. If, however you add more than 2% MEKP catalyst, you risk the chance of over exotherming, especially if the ambient temperature is >75°F.
TYPICAL PROPERTIES OF CURED CASTING @ 77°F (guidance only)

1Tensile strength 9,600
1Tensile modulus, psi x 106 0.52
1Tensile elongation, % 3.0
2Flexural strength 19,000
2Flexural modulus, psi x 106 0.52
Compressive strength, psi 17,000
3Barcol hardness 40
Heat deflection temp, °F 180

Handling: SOLAREZ casting resin contains ingredients which 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.