Polymer Composites Incorporated

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REACTION RATE OF MAX CLR EPOXY RESIN SERIES
200 GRAM MASS (1 PINT)

The reaction time of an epoxy system is determined by the time it takes for a given volume or mass of mixed resin to convert from a liquid to a solid or cured plastic polymer. By measuring the exothermic temperature or the heat energy produced, the amount of time in which the mixed resin must be applied and used to achieve the optimal performance can be established. This duration is called **WORKING TIME** and caution must be observed not to allow the mixed resin to resin to react in a confined mass which could reach in excess of 300°F or greater. The reaction rate will be much slower if the same mass of resin is spread over a larger area.

This time scale is called **THIN FILM SET TIME** which is the time where the surface of the polymer becomes tack free.

Note that all three versions of the MAX CLR demonstrate almost identical exothermic temperature until 20 minutes from the initial mix time. The MAX CLR FAST begins to accelerate and produce higher exothermic temperature after 20 minutes; its reaction rate increases exponentially as the heat energy it generates produces a catalytic acceleration of cure.