

RR Epoxy System - Project 21

Epoxy Resins 1980/2000/2020/2040

Epoxy Hardeners 2100F/2100S/2100X

Description

The Project 21 System was originally developed for sports and marine and today finds use in a wide variety of composite products. It is a modified bisphenol A resin of medium viscosity offering an excellent balance of color, UV stability, varying hardener speeds, easy mix ratios, extremely low vapor pressure, excellent chemical adhesion and high gloss finish. Varying flexibility in the different resins allow production of varying degrees of stiffness or flexibility, 1980 being the stiffest and then each in the line is more flexible with 2040 being the most flexible. Therefore different composite fabrics and different applications can all be satisfied with the use of one system.

Advantages

- Very low color and good color stability
- Good chemical resistance
- High gloss
- Good resistance to amine blush
- Low viscosity
- Variable Toughness vs. Modulus

Applications

- High-solids coatings
- Self-leveling and pebble finish flooring
- Chemically resistant tank linings
- Sports equipment

Handling Precautions

Refer to the Safety Data Sheet

Storage Life

At least 24 months from the date of manufacture in the original sealed container at ambient temperature. Store away from heat and excessive humidity in tightly closed containers.

Typical Properties

Appearance Clear Liquid
Color (Gardner) 1
Viscosity @ 77 °F (cP) 399 - 600 mixed
Epoxide Equivalent Weight Resin 180
Specific Gravity @ 77 °F 1.15
Density @ 77 °F (lb/gal) 9.5
Flash Point (closed cup) (°F) NA
Recommended Hardener Use Level:
45 phr weight or 50 phr volume

Typical Handling Properties

Use Level:
By Weight - 100 R to 45H
By Volume - 100 to 50 V
Mixed Viscosity @ 77 °F (cP) 1000 - 1500
Gel Time (150g mix @ 77 °F) (Min)
Fast 18, Slow 40, X-Slow 140
Thin Film Set Time @ 77 °F (hr)
Fast 2, Slow 4, X-Slow 14
Thin Film Set Time @ 50 °F (hr)
Fast 6, Slow 12, X-Slow 36
Peak Exotherm (100g mix @ 77 °F)
Fast 197F, Slow 190F, X-Slow 158F

Typical Performance

Refer to Project 21 web page
www.resinresearch.net

Typical Cure Schedule

2-7 days at ambient temperature.

Resin Research

EPOXY SYSTEMS

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