



**POLYCRYL CORPORATION**  
 Earthguard Resins and Gel Coats

## Data Sheet

**POLYCRYL  
 CORPORATION**

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### *EG 4550 IR* *EarthGuard 4550 Low Profile Infusion Tooling Resin*

The EarthGuard 4550 IR Infusion Tooling Resin has been formulated as a low profile additive modified vinylester infusion tooling resin for producing composite molds with minimal shrinkage and dramatically improved surface profile. This resin has been developed for mold making and tooling applications. These applications include molds for marine, automotive, aerospace, the military, and various other FRP manufacturing.

#### CHARACTERISTICS

- Shrink controlled for near perfect mold replication
- Excellent glass wet out
- Superior mechanical properties

#### PROPERTIES OF THE LIQUID RESIN

-Viscosity (Brookfield LV #3 spindle @ 60 rpm), cps	150
-Gel Time (150 grams @77°F) 1.50 % United Initiators 925H or Akzo Nobel L50a	30-35 minutes
-Peak Exotherm (150 grams @77°F) 1.50 % United Initiators 925H or Akzo Nobel L50a	380° F
-Appearance	Amber Liquid
-Solids Content	60-62%
-Gallon Weight	9.0
-Shelf Life	3 Months @77°F

DISCLAIMER: The data on this sheet represents typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Polycryl assumes no obligation or liability for use of this information. UNLESS POLYCRYL AGREES OTHERWISE IN WRITING, POLYCRYL MAKES NOT WARRANTIES, EXPRESS OR IMPLIED, AND DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR FREEDOM FROM PATENT INFRINGEMENT. POLYCRYL WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. Your only remedy for any defect in this product is the replacement of the defective product, or a refund of its purchase price, at our option.

MECHANICAL PROPERTIES, (4 layer of 1.5oz chopped strand mat)

Flexural Strength	29,000 psi
Flexural Modulus	1,040,000 psi
Elongation	2.1
Tensile Strength	22,000 psi
Tensile Modulus	1,470,000 psi
Heat Distortion Temp	280°F
Barcol	50
Glass Content	40%

APPLICATION RECOMMENDATIONS

Gel Coat Application: Apply a minimum of 30 mils of vinylester tooling gel coat to the master. (EarthGuard Diamondback Tooling Gel Coat is recommended)

Skin Coat Application: Apply a minimum of two 1.5 ounce layers of chopped strand mat using a vinylester skin coat resin. (EarthGuard 2500 or 3000HT is recommended)  
Make sure all air is removed, especially in tight radii. Allow the skin coat to cure sufficiently.

CAUTION

**The EG4550 IR is formulated to be used at temperatures between 65 and 85°F, (Ideally 70-80°F). Deviations may negatively impact the cure and phasing of the LPA and resin resulting in loss of surface profile and mechanical properties.**

**It is important to thoroughly mix the resin prior to each use in order to avoid any settling that may occur.**

**Please use 1.50% catalyst level, United Initiators 925H or Akzo Nobel L50a, no substitutes.**

PACKAGING

Available in 45# pails or 475# drums.

STORAGE CONDITIONS AND HANDLING

- Storage Life: 90 days from the date of manufacture @ 77°F or less.
- This product should be stored under controlled conditions between 60 and 80°F.
- Avoid exposure to heat sources such as direct sunlight.