Resin Adhesion Examples

Resin Type:
E = epoxy
E-VE = epoxy-vinyl ester
VE = vinyl ester
S = specialty

<table>
<thead>
<tr>
<th>Resin Type</th>
<th>Adhesive Type</th>
<th>Shear Strength (Lbf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Mitsubishi-Newport NB301</td>
<td>1000</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 862-Epikure 3290</td>
<td>900</td>
</tr>
<tr>
<td>E-VE</td>
<td>CCP RF1001-L00 / MEKP925 / Cobalt 12%</td>
<td>800</td>
</tr>
<tr>
<td>E</td>
<td>Huntsman Araldite 5052 / 5052CH</td>
<td>700</td>
</tr>
<tr>
<td>E</td>
<td>Gurit SP115</td>
<td>600</td>
</tr>
<tr>
<td>E</td>
<td>PTM&amp;W PT2712 A / B</td>
<td>500</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 828 - Epikure 3290</td>
<td>400</td>
</tr>
<tr>
<td>E</td>
<td>Gurit Ampreg 21FR / Slow Hardener</td>
<td>300</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 862-Epikure 3230</td>
<td>200</td>
</tr>
<tr>
<td>E</td>
<td>PROSET LAM125 / 226H</td>
<td>100</td>
</tr>
<tr>
<td>E</td>
<td>CASS Adtech EL-350</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Silvertip Slow Epoxy</td>
<td>0</td>
</tr>
<tr>
<td>E-VE</td>
<td>AOC Hydropel R015 APF 55</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research Kwik Kick</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Springfield BC2598-bT</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>AME 6001 / MEKP 925</td>
<td>0</td>
</tr>
<tr>
<td>E-EVE</td>
<td>Endurance Technologies 4505 A/B</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Entropy Super Sap CLR / CLX / INH</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>PCCR 787-5995</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2000 / 2100H / Add. F</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>ADTECH EP700 / EP802H</td>
<td>0</td>
</tr>
<tr>
<td>E-VE</td>
<td>CCP KF3202-L00 / MEKP925 / Cobalt 12%</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2070 / 3100H / Add. F</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2020 / 2100H / Add. F</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Durant Duro-O-Bond TCR-1000 A/B</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 8131-Epikure 3290</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2040 / 2100H / Add. F</td>
<td>0</td>
</tr>
</tbody>
</table>

ASTM D3518 In-Plane Shear Strength (Lbf @ 5% elongation)
### Resin Adhesion Examples

<table>
<thead>
<tr>
<th>Resin Type</th>
<th>Resin Name</th>
<th>ASTM D3518 Max In-Plane Shear Stress (psi @ 5% elongation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Mitsubishi-Newport NB301</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 862-Epikure 3290</td>
<td>10000</td>
</tr>
<tr>
<td>E-VE</td>
<td>CCP RF1001-L00 / MEKP925 / Cobalt 12%</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Huntsman Araldite 5052 / 5052CH</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Gurit SP115</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>PTM&amp;W PT2712 A / B</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Gurit PRIME 20LV + slow hardener</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 828 - Epikure 3290</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Gurit Ampreg 21FR / Slow Hardener</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 862-Epikure 3230</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>PROSET LAM125 / 226H</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>CASS Adtech EL-350</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Silvertip Slow Epoxy</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>AOC Hydropel R015 APF 55</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research Kwik Kick</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Springfield BC2598-bT</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>AME 6001 / MEKP 925</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Endurance Technologies 4505 A/B</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Entropy Super Sap CLR / CLX / INH</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>PCCR 787-5995</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2000 / 2100H / Add. F</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>ADTECH EP700 / EP802H</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>CCP KF3202-L00 / MEKP925 / Cobalt 12%</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2070 / 3100H / Add. F</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2020 / 2100H / Add. F</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Durant Duro-O-Bond TCR-1000 A/B</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Momentive Epon 8131-Epikure 3290</td>
<td>10000</td>
</tr>
<tr>
<td>E</td>
<td>Resin Research 2040 / 2100H / Add. F</td>
<td>10000</td>
</tr>
</tbody>
</table>

**Resin Type:**

- **E** = epoxy
- **E-VE** = epoxy-vinyl ester
- **VE** = vinyl ester
- **S** = specialty
Mitsubishi-Newport NB301
epoxy
918
12295
Low temp cure, toughened, controlled flow epoxy prepreg film system. Suitable for structural applications in sporting goods, marine,救援, and industrial manufacturing.

Momentive Epoxy 860-Epikure 7260
Bis-A Epoxy
932
10381
Pre-promoted. Reduced HAP resin formulation. Used with post cure.

COP RF4500-LD / MEXPOS / Cubalt 12%
Bis-A epoxy - vinyl ester
864
9712
Superior resistance to stress crack failure while having excellent elongation.

Huntermet Araldite 1012 / S310CH
Bis-A Epoxy
843
9524
Superior resistance to high strain. High degree of toughness and chemical resistance.

Gurus SPI15
Bis-A / Bio-Resin
840
9548
Superior resistance to high strain. Ultra clear, good light resistance, high degree of toughness and water resistance.

PTM&B P3427A / B
SILVERTIP
833
9648
Strong adhesion, low elongation (2.5%). Flow well, produces dense, void free laminates. Cured properties similar to high. High light tint due to cured.

Gurus FBMKE 300 + slow hardener
epoxy
796
9504
Specifically designed for use in infusion, RTM, INFRAPOL, and RT. Low exothermic, excellent mechanical and physical properties. Recommended for filament winding, fibers lay-up. Sample prepared by wet prep / vacuum bagging.

Momentine Epoxy 820 - Epikure 2320
Bis-A epoxy
791
8594
Clear laminating / vacuum bagging epoxy system. FR (flammable retardant) system.

Gurus Amping 302 / Slow Epoxy
epoxy
780
9563
Medium cure 3-5 hours working time. Optimized for hand lay-out and machine impregnation in contact molding, vacuum bagging and light RTM applications.

PROSET LAM525 / 230H
Bis-A epoxy
764
8707
Resin Mix Viscosity (cP)
320 @ 77°F (25°C) 70 5.3
320 @ 77°F (25°C) 70 5.3

CAST Adtech GL-50
Bis-A epoxy Blend
763
8667
Superior adhesion to Innegra fabric. High degree of toughness and chemical resistance. Recommended for infusion, RTM, hand layup, filament winding. After 16 hours at room temperature was still viscous. After 8 more hours with heat warmed.

SilverTip Slow Epoxy
epoxy
745
7919
Clear laminating / infusion resin. Excellent penetration and bond for porous substrates. Excellent for light weight, large structure applications. Good adhesion when wet.

AOC Hydropel 8015 A/F 15
Vinyl Ester
742
8774
Toughened vinyl ester resin that offers dramatically improved fracture toughness and corrosion resistance even through synthetic resin.

Resin Research Wark Kick
Bis-A epoxy
737
8738
Low viscosity when the resin is heated before mixing. Slight green tint.

SpringField BC209B-RT
Vinyl ester
673
7951

AEM 8001 / MEXPOS-25
Vinyl ester - chloro-acrylate modified
675
7105
Extremely slow curing (1200+ min). Good for filament winding. Slow exotherm and low smoke generation.

Endurance Technologies 4350-4 / 4 A/B
Bis-F epoxy
670
7176
Designed for use in structural applications needing superior performance. Exothermic, excellent mechanical and physical properties.

Entropy Super Sap CLR / CLX / INH
Bis-A epoxy
663
7233
Strong adhesion, low elongation (2.5%). Flow well, produces dense, void free laminates. Cured properties similar to high. High light tint due to cured.

PGC 787-5935
Vinyl Ester
657
7734
Toughened vinyl ester resin that offers dramatically improved fracture toughness and corrosion resistance even through synthetic resin.

Resin Research 2000 / 2100H / Add. F
Bis-A epoxy
648
7253
Designed as a casting resin with high toughness and impact resistance. Very fast gel time (10 - 20 min). Significant odour (ethylene / acrylate)

ADTECH 87760 / EPOXY
proprietary blend
638
7209
Recommended for filament winding, hand layup, infusion, RTM. Resin deactivated during handling.

COP RF3500-LD / MEXPOS / Cubalt 12%
Bis-A epoxy - vinyl ester
625
7533
Resin Mix Viscosity (cP)
300 @ 77°F (25°C) 70 5.3
300 @ 77°F (25°C) 70 5.3

Resin Research 2070 / 3300H / Add. F
Bis-A epoxy
570
6472
Recommended for filament winding, IM layup, vacuum bagging and resin transfer molding. Good and chemical resistant properties with post-cure.

Resin Research 2020 / 3100H / Add. F
Bis-A epoxy
560
6366
For use where flexibility and toughness are required. Also good with synthetic fabrics, encapsulation, vacuum bagging and concrete primers.

Duram Duro-Bond TOC-1000 A/B
proprietary blend
526
5801
Recommended for filament winding, hand layup, infusion, RTM - after 15 hours at room temperature was still viscous. After 18 more hours with heat lights at 150°F, 48 hours at room temperatures, 6 more hours at 150°F, and 4 hours at 105°C in oven still appeared rubbery. Delamination on debate when removed. Delamination during testing.

Momentive Epoxy 8154-3200
Bis-A epoxy - vinyl ester
520
5913
Designed as a casting resin with high toughness and impact resistance. Very fast gel time (10 - 20 min). Significant odour (ethylene / acrylate)

Momentive Epoxy 2040 / 2100H / Add. F
Bis-A epoxy
519
5888
Recommended for filament winding, hand layup, infusion, RTM. Resin deactivated during handling.

Momentine Epoxy 8201-3420
Bis-A epoxy - vinyl ester
517
2814
Recommended for filament winding, hand layup, infusion, RTM. Resin deactivated during handling.