

# Product Bulletin



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EL-301 (25 MIN.)  
 EL-301-LP (60 MIN.)  
 EPOXY LAMINATING RESIN SYSTEM  
 ROOM TEMP - UNFILLED - AMBER

0302

## DESCRIPTION

EL-301 and EL-301-LP are unfilled epoxy laminating resin systems with excellent handling properties which will produce dimensionally accurate laminated duplications and tools. They offer maximum cloth penetration (wet-out), low viscosity, low odor, and excellent cured physical properties. Both EL-301 and EL-301-LP were developed for all types of room temperature laminating and close tolerance tooling applications. These systems can also be used as adhesives due to their ability to cure as a thin film creating a very strong, durable bond. Use EL-301 and EL-301-LP with ADTECH surface coat systems ES-201-PC, ES-218 and ES-204.

## USES

- |   |                                  |
|---|----------------------------------|
| Checking and inspecting fixtures and gauges | Router and trim fixtures         |
| Assembly and drill fixtures                 | Foundry patterns                 |
| Master die molds                            | Bonding pattern and model boards |
| Thin film adhesive                          | Composite stretch form skin      |

## HANDLING CHARACTERISTICS @ 25°C/77°F

### EL-301

### EL-301-LP

Mix Ratio (parts by weight).....	100R/25H .....	100R/33H .....
(parts by volume).....	3.4R/1H .....	2.6R/1H .....
Density (Mixed).....	9.38 lbs/gal .....	9.11 lbs/gal .....
.....	0.040 lbs/cu in .....	0.039 lbs/cu in .....
Specific Gravity (Mixed).....	1.12 grams/cc .....	1.09 grams/cc .....
Mixed Viscosity.....	1000-2000 cps .....	2000-3500 cps .....
Work Life .....	23-33 minutes .....	60 minutes .....
Demold Time.....	16 hours .....	24 hours .....
Complete Cure.....	3-5 days .....	3-5 days .....
Color.....	Amber .....	Amber .....
Storage Life (Containers tightly closed at ambient temperature).....	1 Year .....	1 Year .....

## PHYSICAL PROPERTIES

### 6 Layer, 10 Ounce Glass Fabric Laminate:

Ultimate Tensile Strength.....	35,300 psi .....	44,780 psi .....
Tensile Modulus.....	2.34 x 10 <sup>6</sup> psi .....	3.2 x 10 <sup>6</sup> psi .....
Ultimate Flexural Strength.....	46,410 psi .....	52,880 psi .....
Flexural Modulus.....	1.43 x 10 <sup>6</sup> psi .....	2.0 x 10 <sup>6</sup> psi .....

### Cast Bar:

Compressive Strength.....	13,390 psi .....	11,760 psi .....
Hardness.....	86 Shore D .....	86 Shore D .....
Coefficient of Thermal Expansion.....	2.42 x 10 <sup>-5</sup> in/in/°F .....	2.67 x 10 <sup>-5</sup> in/in/°F .....
Tensile Elongation.....	6.2% .....	1.8% .....
Shrinkage.....	0.005 in/in .....	0.0042 in/in .....
Heat Deflection Temperature.....	>80.2°C/176°F .....	>80.2°C/176°F .....

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