



# Technical Data Sheet

## Freeman 917 Economical Hi-Temp Laminating Resin

### Description

Freeman 917 Hi-Temp Laminating Resin System features low viscosity, adequate gel time, excellent “wet out” characteristics, low shrinkage, good durability and heat resistance. Freeman 917 Hi-Temp Laminating Resin, when used in conjunction with Freeman 945 Hi-Temp Surface Coat, is ideal for the construction of vacuum-form molds, blow molds, holding, nesting, and bonding fixtures that are typically subjected to high temperatures.

### Physical Properties

Color (mixed)	Gray
Mix Ratio (R:H by wt.)	100:10
Viscosity (cps, mixed)	4,000
Viscosity (cps, resin only)	7,000-10,000
Viscosity (cps, hardener only)	140-200
Gel Time (min. @ 72°F)	52
Tg (by DMA °F)	301
Hardness (Shore D)(ASTM 2240)	92
CTE per TMA (in./in./°F)(ASTM 696)	2.56 x 10 <sup>-5</sup>
Tensile Strength (psi)(ASTM D-638)	23,000
Tensile Modulus (psi)	2.0 x 10 <sup>6</sup>
Tensile Elongation (%)	1.45
Compressive Strength (psi)	24,500
Compressive Modulus (psi)	2.4 x 10 <sup>6</sup>
Flexural Strength (psi)	30,574
Flexural Modulus (psi)	1.6 x 10 <sup>6</sup>
Specific Gravity, Mixed (ASTM D-792)	1.46
Demold Time (hrs)	24
Volumetric Yield (cu. in./lb)	19

**Curing Instructions:** After gelling at room temperature for 16 to 24 hours, the following postcure schedule is recommended: 2 hours @ 150°F on the mold if possible, plus 2 hours @ 200°F, plus 2 hours @ 250°F, plus 2 hours @ 300°F.

Temperature limitations of the mold or model dictate whether it can be used as the supporting structure during the postcure cycle, If the tool must be pulled from the model for the postcure, a supporting frame must be provided.

Uniform heat distribution is also required during postcure; concentrated heat, such as that directed from a lamp, can cause warp. An elevated temperature cure will slightly increase the shrinkage compared to a room temperature cure.

### Ordering Information

SKU	Description	Size	Net wt.
055976	917 Laminating Resin	5 gallon	45 lbs
055977	917 Laminating Hardener	1 gallon	4.5 lbs

The user shall determine the suitability of this product for their application and assumes all risks and liabilities associated with the use of this product. The exclusive remedy for all proven claims is replacement of our materials only and in no event shall Freeman Mfg. & Supply Co. be liable for special, incidental, or consequential claims

