



PMT-F7

Description

PMT-F7 is a toughened, high temperature epoxy resin system designed for high performance space and aerospace applications. The resin can be impregnated into numerous reinforcements and imparts a medium tack.

Resin Properties

Property	Value
Density	1.24 g/cm ³
Outgassing (TML)	0.5%
Outgassing (VCM)	0.02%
*Water absorption	2.2%
Tg, standard cure	378°F
Tg, 440°F Post Cure	444°F

Property	Value
Tg, Wet*	351°F
Tension Strength	10.42 Ksi
Tension Modulus	0.43 Msi
Toughness K _{1c}	0.87 in-lb/in ²
Maximum Strain	4.14%

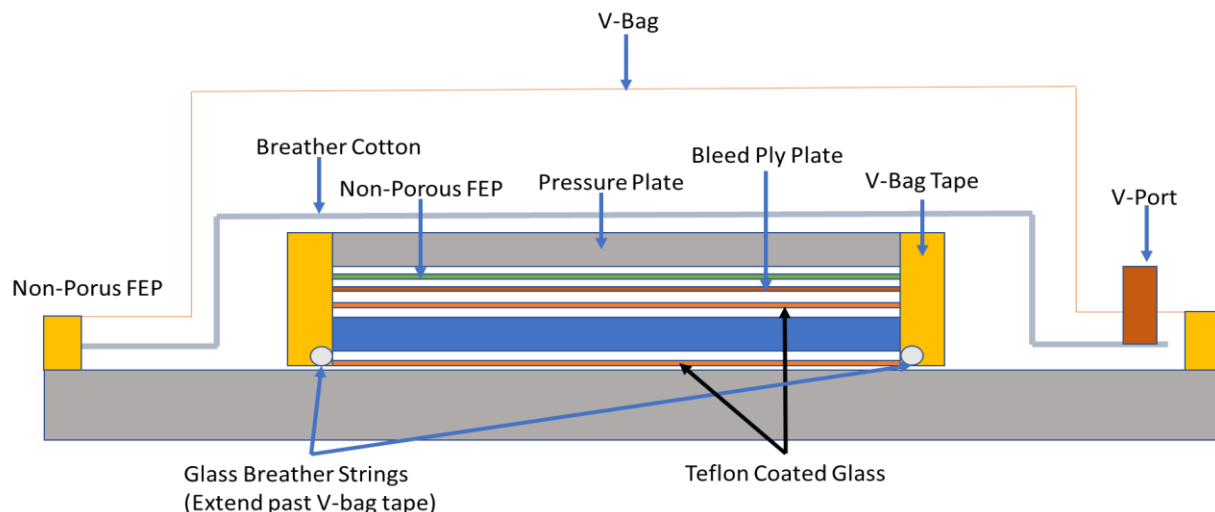
*Wet properties based on 5 day water boil

Storage

PMT-F7 should be stored in a desiccated sealed bag. PMT-F7 has a storage life of 1 year when stored at 10°F and a handling life of 30 days when stored at 70°F or below.

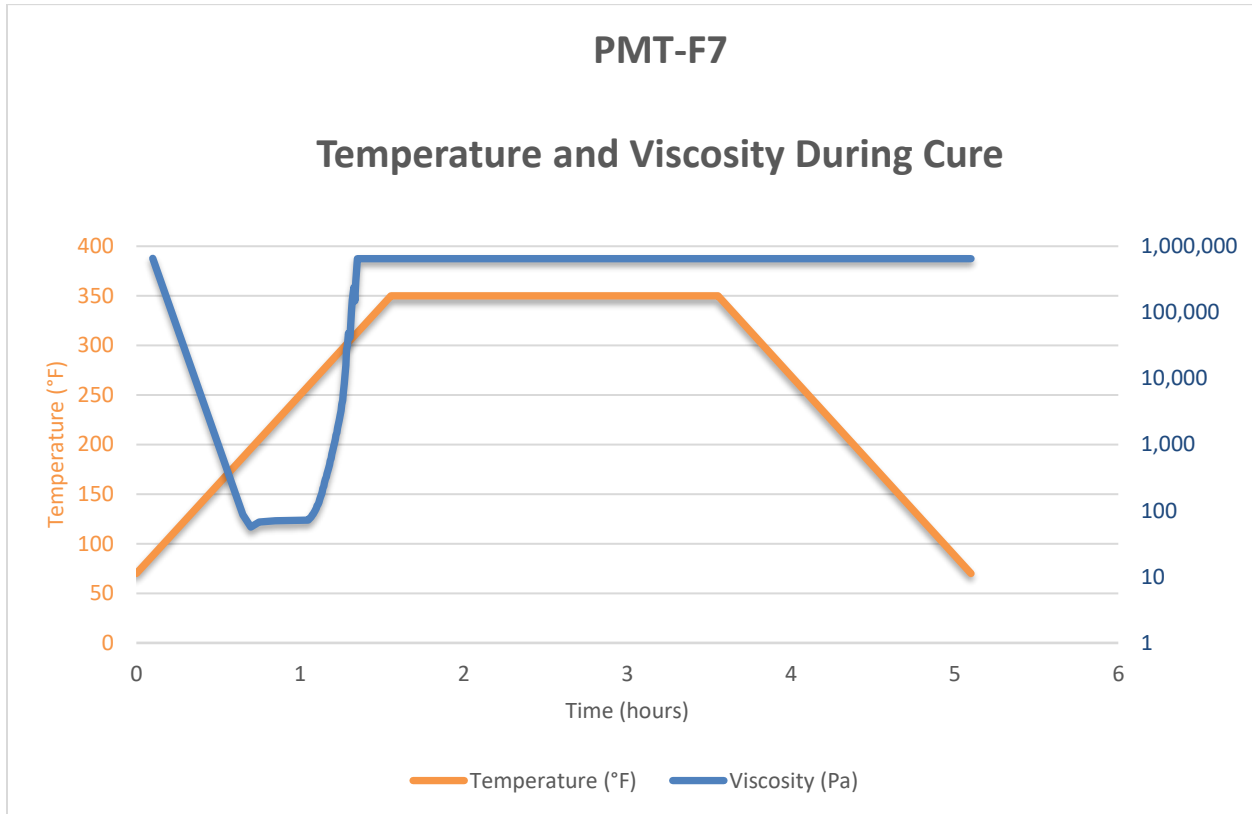
Recommended Bagging Procedure

PMT-F7 requires heat and pressure for consolidation. There are many different layup and cure procedures that will yield successful structures. As a base line PMT recommends using the following bagging sequence.





Cure Cycle



- Stage 1 – Ramp 3°F/min to 350°F under vacuum bag and 80 psi autoclave pressure.
- Stage 2 – Dwell at 350°F for a minimum of 2 hours
- Stage 3 – Ramp 3°F/ min to 350°F

Lamina Mechanical Properties

Property*	ASTM Test Method	PMT-F7/M55J UDP	PMT-F7/IM7 UDP
0° Tensile Strength, Ksi	D3039	313	390
0° Tensile Modulus, Msi	D3039	51.8	28.2
90° Tensile Strength, Ksi	D3039	4.8	6.4
90° Tensile Modulus, Msi	D3039	3.2	3.0
0° Compression Strength, Ksi	D6641	126	286
0° Compression Modulus, Msi	D6641	52.6	22.0
Short Beam Shear Strength, Ksi	D2344	11.8	16.8

*Properties may vary dependent on manufacturing process.