

3434-3E resin system is based on 350°F (177°C) curable epoxy resin. It is suitable for the realization of high performance composite structure. In particular, it is suitable for a composite material requiring high thermal properties.

## COMPOSITE PROPERTIES

### UD Tape

PROPERTY	Lay-up patterns	UNTIS	M46JB	METHOD
Tension	0° UD	Strength MPa	1802.6	ASTM D 3039
		Modulus GPa	246.2	
	90° UD	Strength MPa	38.5	
		Modulus GPa	7.1	
	0° / 90° Laminate	Strength MPa	774.9	
		Modulus GPa	127.9	
	Quasi-isotropic [0°/45°/90°/-45°]	Strength MPa	647.5	
		Modulus GPa	85.90	
Compression	0° UD	Strength MPa	1059.8	ASTM D 6641
		Modulus GPa	210.3	
	90° UD	Strength MPa	182.5	
		Modulus GPa	7.6	
	0° / 90° Laminate	Strength MPa	462.8	
		Modulus GPa	101.8	
	Quasi-isotropic [0°/45°/90°/-45°]	Strength MPa	393.6	
		Modulus GPa	71.80	
In-Plane Shear	45°/-45° Laminate	Strength MPa	135.9	ASTM D 3518
		Modulus GPa	4.5	
Flexural	0° UD	Strength MPa	1443.6	ASTM D 790
		Modulus GPa	230.6	

※ The prepreg for mechanical testing is the carbon UD prepreg (FAW : 125 gsm, R/C : 32±2 wt.%) using 46LH. The prepreg was cured according to the typical autoclave cure cycle shown in this TDS.

## THERMAL PROPERTIES

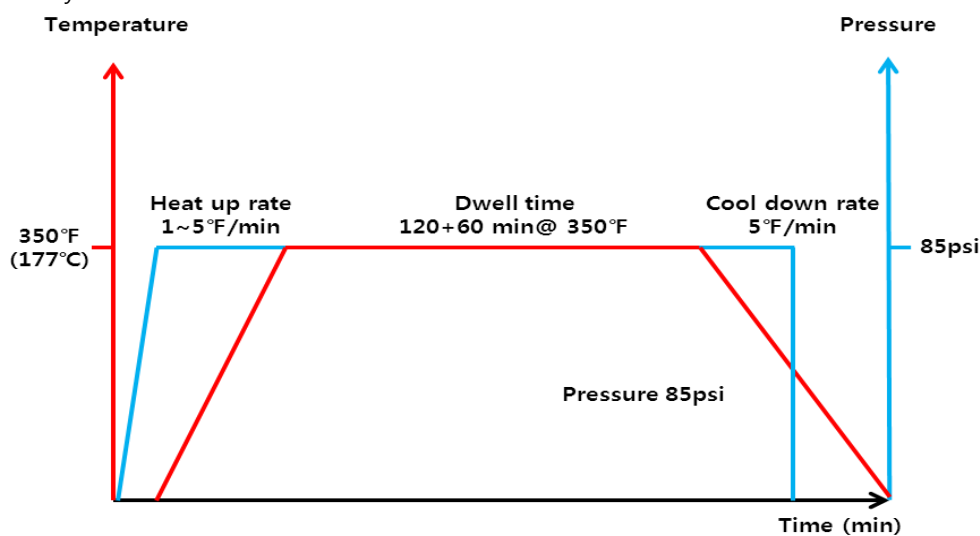
PROPERTY	VALUE (Dry)
Storage modulus onset	210°C
Loss modulus peak	226°C
Tan-delta peak	234°C

※ Thermal properties were measured by Dynamic Mechanical analysis (DMA) at 25~250°C, 10°C/min

## PROCESSING CONDITION

TEMPERATURE	CURING TIME
180°C	120 min

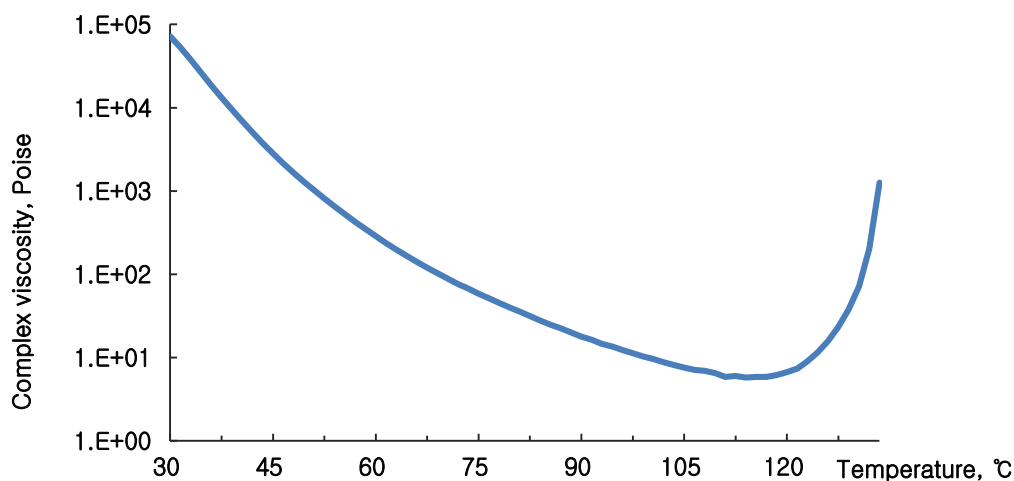
Typical autoclave cure cycle is shown as below



## RHEOLOGY

HEATING RATE	MINIMUM VISCOSITY
3°C/min	11 Poise

The viscosity of G101 was measured according to the rate of temperature rise of 3°C/min



## SHELF LIFE

STORAGE TEMPERATURE	SHELF LIFE
Room Temperature +21°C	20 Days
Cold Storage -5°C	1.5 month
Frozen -21°C	12 month

## HANDING & USE

Prepreg which is impregnated with G101 resin system must be stored in a freezer. When material is removed from the freezer, it is essential that the roll be allowed to thaw and reach room temperature before the plastic bag is opened. For example, the thaw time for a 20 linear meter roll taken from -18°C(0°F) storage into a 21°C(70°F) room is typically between 4 and 6 hours. Condensation may form on the surface of the material. if it is not fully thawed. Moisture within a curing laminate may be detrimental to final part quality and appearance. When materials are returned to the freezer, they must be resealed to prevent ingress of moisture

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