

G101 is a formulated with high clarity epoxy resin system. It is a transparent resin system with anti-yellowing technology. This resin is suitable for cosmetic parts such as automotive exterior materials and it is based on 250°F (121°C) curing cycle.

COMPOSITE PROPERTIES

UD Tape

PROPERTY	T-700S	METHOD
Tensile Strength	2167 MPa	ASTM D 3039
Tensile Modulus	119 GPa	
Compressive Strength	1123 MPa	ASTM D 6641
Compressive Modulus	104 GPa	
Flexural Strength	1658 MPa	ASTM D 790
Flexural Modulus	111 GPa	
ILSS	85 MPa	SACMA 8R-94

※ The prepreg for mechanical testing is the carbon UD prepreg (FAW:150 gsm, R/C:33±2 wt.%) .%) using T700S by Toray.

THERMAL PROPERTIES

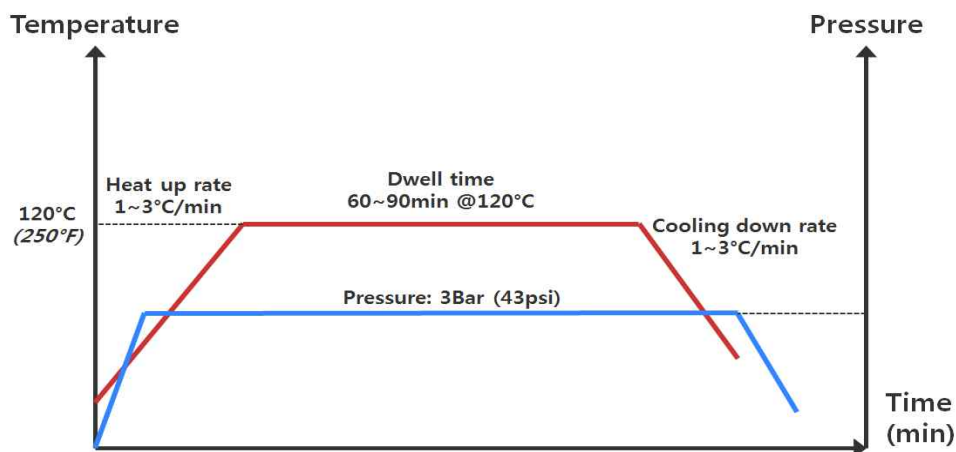
PROPERTY	VALUE
Tg by DSC	118°C

※ Tg defined by DSC after curing as below typical curing cycle.

PROCESSING CONDITION

TEMPERATURE	CURING TIME
120°C	120 min

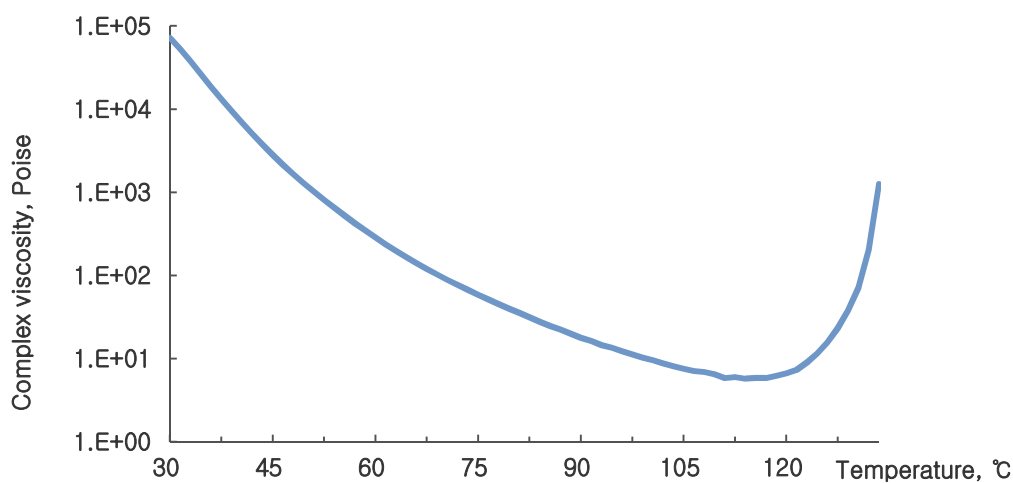
Typical autoclave cure cycle is shown as below.



RHEOLOGY

HEATING RATE	MINIMUM VISCOSITY
3°C/min	10 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	1 month
Cold Storage -5°C	3 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.