

ThreeBond 3114

UV Resin

ThreeBond 3114 is a one component solvent free UV curing resin. It cures within a few seconds at room temperature when irradiated by ultra-violet light on wavelength between 200 to 400nm.

1. Features

- Epoxy resin
- One component solvent free
- UV curing
- Service temperature : -40 / +120 (150)°C
- Fixing and sealing optic and electronic components

2. Properties

Before curing

Test	Results	Unit
Colour	Grey / White	-
Viscosity at 25°C	26	Pa.s
Thixotropic index	3.0	-
Specific gravity at 25°C	1.54	-
Curing thickness (3000mJ/cm ²)	2.0	mm

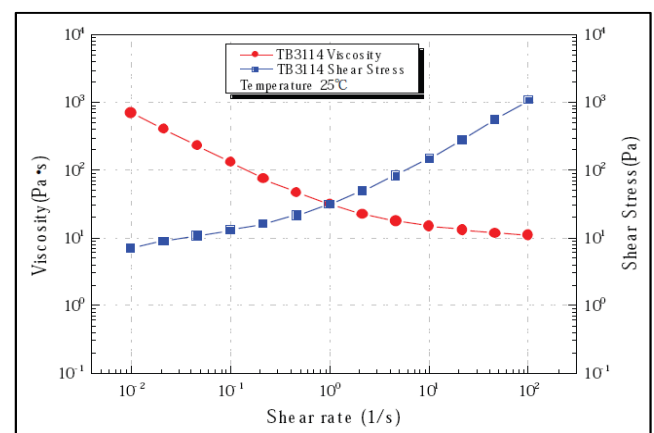
After curing

Test	Results	Unit
Hardness	80	Shore D
Shear strength		
Glass / Glass	7.7*	MPa
Glass / PPS	4.8	
Glass / LCP	3.5	
Glass / ZDC	6.2	
Shrinkage	1.2	%
Water absorption (100°Cx2h)	+ 1.0	%
Glass transition temperature	50	°C
Thermal expansion coef.		
α ₁	30	ppm/°C
α ₂	77	

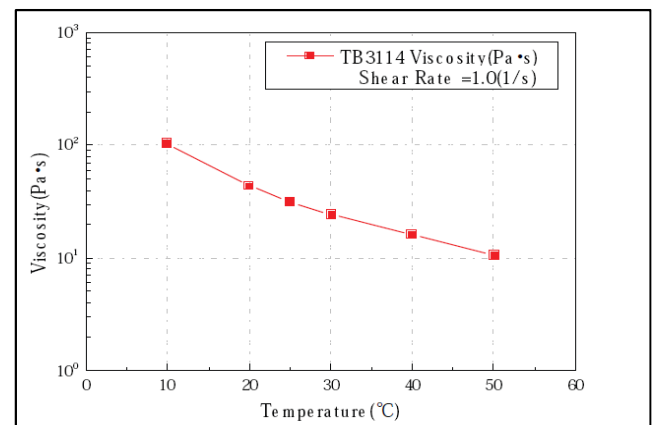
Test	Results	Unit
Young modulus at 25°C	19	GPa
tan δ peak	73.6	°C

*: Material broken

Fluidity curve



Viscosity Vs. Temperature



3. Handling

- Before use, please refer to the safety data sheet.
- Prior to opening the container, let it reach room temperature to avoid condensation inside.

Data given here were compiled to the best of our knowledge and are based on experiments and tests of our Company. We cannot guarantee the results obtained through the use of our products, and all products are sold and samples given without any warranty, expressed or implied, of fitness for any particular purpose or otherwise and upon condition that the user shall make his own tests to determine the suitability of the product for his purpose.

- To obtain optimal results, remove humidity, grease and other impurities from the surfaces to be assembled.
- Depending on the materials (dimensions and surface roughness), apply an appropriate and uniform amount of liquid gasket on the surface, then assemble rapidly.
- The curing time under UV light may vary depending on the resin thickness, the power source and its distance. Use an appropriate UV source.
- The product may reach its final properties 24h after UV irradiation. We recommend waiting for this time before conducting trials.
- The product once transferred into another container should not be returned to the original one. Any excess product should be wiped out using a cloth.
- Excess product may be removed using TB2890D cleaner.
- Keep the product in its original container tightly sealed and store it in a dark, dry and well ventilated place at **5 ~ 25°C**.