

## Reinforcement of Flip-Chip Die Bonding and Rigid Substrate Connection

## **Underfills**

**LOCTITE ECCOBOND FP4547** 

**LOCTITE ECCOBOND FP 5201** 

LOCTITE ECCOBOND UF 8830

Properties		Units	LOCTITE ECCOBOND FP4547	LOCTITE ECCOBOND FP 5201	LOCTITE ECCOBOND UF 8830
Viscosity (Brookfield CP51 / 5 rpm)		mPa.s	18,000	21,000	12,000
Glass Transition Temperature (T <sub>g</sub> )		°C	135	171	92
Modulus @ 25°C		N / mm²	11,000	5,800	5,800
CTE	below	ppm / °C	21	31	31
	above		80	65	120
Recommended Cure			30 min. @ 165°C	30 min. @ 165°C	2 hrs. @ 150°C

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