

## Tra-Con Tra-Bond F110 Optically Transparent Low Viscosity Epoxy Adhesive

Category : Polymer , Adhesive , Thermoset , Epoxy

### Material Notes:

TRA-BOND F110 is a rigid, optically clear adhesive with a very low viscosity. This room temperature curing system is an excellent choice for thin bond-line assembly and repair applications of prisms, lenses and other optic components. Its high strength makes this epoxy ideal for structural applications and its insulative properties are perfect for intricate bonding of electronic components. TRA-BOND F110 exhibits excellent wetting and wicking capabilities which allows it to adhere strongly to glass, ceramics, metals and most rigid plastics. Its highly structured matrix gives F110 good resistance to salt solutions, mild acids and alkalis and many other chemicals. Information provided by Tra-Con Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Tra-Con-Tra-Bond-F110-Optically-Transparent-Low-Viscosity-Epoxy-Adhesive.php](http://www.lookpolymers.com/polymer_Tra-Con-Tra-Bond-F110-Optically-Transparent-Low-Viscosity-Epoxy-Adhesive.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.17 g/cc	1.17 g/cc	Mixed
Solids Content	100 %	100 %	Reactive Solids Content
Volatile Organic Compounds (VOC) Content	39.1 g/l	39.1 g/l	
Viscosity	300 cP @Temperature 25.0 °C	300 cP @Temperature 77.0 °F	After mixing

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	85	85	
Adhesive Bond Strength	14.8 MPa	2150 psi	Lap shear, alum to alum, 24 hrs @ 25°C
	17.9 MPa	2600 psi	Lap shear, alum to alum, 1 hr @ 65°C
	20.7 MPa	3000 psi	Lap shear, alum to alum, 4 hrs @ 65°C
Izod Impact, Notched	0.128 J/cm	0.240 ft-lb/in	

Thermal Properties	Metric	English	Comments
CTE, linear	60.0 µm/m-°C @Temperature 20.0 °C	33.3 µin/in-°F @Temperature 68.0 °F	
Maximum Service Temperature, Air	130 °C	266 °F	
Minimum Service Temperature, Air	-60.0 °C	-76.0 °F	
Glass Transition Temp, Tg	90.0 °C	194 °F	Ultimate Tg

Optical Properties	Metric	English	Comments
Refractive Index	1.54	1.54	
Transmission, Visible	97 %	97 %	3200-9000 Å

Electrical Properties	Metric	English	Comments
Volume Resistivity	6.00e+13 ohm-cm	6.00e+13 ohm-cm	
Dielectric Constant	4.3	4.3	
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	16.1 kV/mm	410 kV/in	

Processing Properties	Metric	English	Comments
Cure Time	60.0 - 120 min	1.00 - 2.00 hour	
	@Temperature 65.0 °C	@Temperature 149 °F	
	1440 min	24.0 hour	
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Pot Life	30 min	30 min	

Descriptive Properties	Value	Comments
Color	Transparent, Clear	
Mix Ratio, parts by weight	100/11	Resin/Hardener
Thixotropic Index	1	
Working Life hours	1	

## Contact Songhan Plastic Technology Co.,Ltd.

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