

## Tra-Con Tra-Cast 3104 Low Viscosity Epoxy Casting Compound

Category : Polymer , Adhesive , Thermoset , Epoxy

### Material Notes:

TRA-CAST 3104 is a low viscosity, room temperature cure epoxy casting system developed for high performance production encapsulation and impregnating applications where filling fine intricate free space is required. This medium exotherm, low shrinkage system exhibits excellent flow and wetting characteristics. Its low viscosity allows for void-free filling and self-leveling in casting use, and excellent impregnation of fine wire transformers and coils. Fully cured TRA-CAST 3104 is a durable electrical insulator, dimensionally stable over a wide temperature range, and is resistant to moisture, gases, petroleum lubricants and fuels, salts, many mild acids and alkalis, and other organic and inorganic compounds. Information provided by Tra-Con Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Tra-Con-Tra-Cast-3104-Low-Viscosity-Epoxy-Casting-Compound.php](http://www.lookpolymers.com/polymer_Tra-Con-Tra-Cast-3104-Low-Viscosity-Epoxy-Casting-Compound.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	12 g/l	12 g/l	
Water Absorption	0.0010 %	0.0010 %	After 24 hours
Viscosity	5000 cP @Temperature 25.0 °C	5000 cP @Temperature 77.0 °F	Mixed (sp #6, 10 rpm)

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	90	90	
Adhesive Bond Strength	9.31 MPa	1350 psi	Lap shear, alum to alum, 72 hrs @ 25°C
	12.4 MPa	1800 psi	Lap shear, alum to alum, 4 hrs @ 25°C + 2 hrs @ 65°C

Thermal Properties	Metric	English	Comments
CTE, linear	89.7 µm/m-°C	49.8 µin/in-°F	Below Tg
	214 µm/m-°C	119 µin/in-°F	Above Tg
Maximum Service Temperature, Air	125 °C	257 °F	
Minimum Service Temperature, Air	-60.0 °C	-76.0 °F	
Glass Transition Temp, Tg	62.0 °C	144 °F	Ultimate Tg

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+14 ohm-cm	2.00e+14 ohm-cm	
Dielectric Constant	4.6	4.6	
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	17.7 kV/mm	450 kV/in	
Dissipation Factor	0.010	0.010	
	@Frequency 1000 Hz	@Frequency 1000 Hz	

Processing Properties	Metric	English	Comments
Cure Time	360 min	6.00 hour	4 hrs @ 25°C + 2 hrs @ 65°C
	1440 min	24.0 hour	
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Pot Life	30 min	30 min	

Descriptive Properties	Value	Comments
Color	Black	
Heat Distortion Temperature °C	105	
Mix Ratio, parts by weight	100/7	Resin/Hardener

## Contact Songhan Plastic Technology Co.,Ltd.

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