



TRA-BOND 2158

November 2011

PRODUCT DESCRIPTION

TRA-BOND 2158 provides the following product characteristics:

Technology	Epoxy
Appearance	Tan
Components	Two component - requires mixing
Product Benefits	• Two component • Thermally conductive • Electrically Insulating • Flexible for Bonding Mismatched Adherends • Room temperature cure
Mix Ratio, by weight - Resin : Hardener	100 : 38
Typical Assembly Applications	Staking transistors, Diodes, Resistors, Integrated circuits and Heat sensitive components to PCBs
Cure	Room temperature or Heat cure
Operating Temperature	-70 to 125°C
Application	Assembly
Surfaces	Many metals, Silica, Steatite, Alumina, Sapphire, Glass, Plastics and Ceramics

TRA-BOND 2158 is a two-part adhesive that develops strong, durable high-impact bonds at room temperature which improve heat transfer while maintaining electrical insulation. TRA-BOND 2158 bonds offer resistance to salts, mild acids and alkalis, petroleum products, lubricating oils and alcohol.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Mixed Viscosity @ 25 °C, mPa·s (cP)	15,000
Specific Gravity, mixed	2.3
Pot Life, hours	3
Shelf Life - Refer to package label	
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

24 hours @ 25°C or
2 to 4 hours @ 65°C

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements, as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical Properties:

Hardness, Shore D	60
Thermal Conductivity, W/mK	8.40×10^{-01}
Reactive solids contents, %	100

Electrical Properties:

Volume Resistivity @ 75°C, ohm-cm	$2 \times 10^{+15}$
Dielectric Strength, volts/mil	410
Dielectric Constant / Dissipation Factor @ 25°C: @ 1KHz	5.9/0.01

TYPICAL PERFORMANCE OF CURED MATERIAL

Lap Shear Strength :

Aluminum to aluminum	N/mm ²	12.75
	(psi)	(1,850)

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

DIRECTIONS FOR USE

1. Carefully clean and dry all surfaces to be bonded.
2. Remove clamp and thoroughly mix the TRA-BOND 2158 epoxy adhesive system components in the handy BIPAX mixing-dispenser package until color is uniform throughout.
3. Apply this completely mixed adhesive to the prepared surfaces, and gently press these surfaces together. Contact pressure is adequate for strong, reliable bonds; however, maintain contact until adhesive is completely cured.
4. Some ingredients in this formulation provided in BIPAX, TRA-PAX and bulk packaging may crystallize when subjected to low temperature storage. A gentle warming cycle of 50°C for 30 minutes prior to mixing components may be necessary. Crystallized epoxy components do not react as well as liquid components and should be redissolved prior to use for best results.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 25 °C

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.



Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note

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Reference 0.0