



TECHNICAL DATA SHEET EPA0145 Black

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DESCRIPTION:

Tacusil EPA0145 Black is a general purpose, low viscosity epoxy potting designed for PCBA , electric component potting with requirement for fast gel and short work time. This formula gives excellent resistance to acids, bases, water, and most organic compounds. The high filler content also enhances resistance to thermal cycle stress.

TYPICAL PROPERTIES:

All properties given are at 25 °C unless otherwise noted.

<i>Property:</i>	<i>Value:</i>	<i>Test Method or Source:</i>
Color	Black	Visual
Mix Ratio	Part A to Part B	Calculated
By weight	100 to 20	
By volume	100 to 32	
Cure Schedule	24@ 25C	
Viscosity – Part A	12000 cps @1/s	Rheometer parallel plate 25mm@1/s
Viscosity – Part B	300cps @1/s	
Viscosity - Mixed	1500 cps @1/s	
Special Gravity		
Specific Gravity – Part A	1.6	Calculated
Specific Gravity – Part B	1	
Specific Gravity - Mixed	1.45	
Pot Life	15mins (100g)	
Gel Time	90minutes	Sunshine Gel Timer
Hardness	82D	ASTM D2240
Water Absorption	0.2% after 24 hours	ASTM D570
Tensile Properties:		ASTM D638/MTS
Strength	4500 psi (round down to nearest 500)	
Elongation	<2%	
Compressive Properties:		ASTM D695/MTS
Strength	11,500 psi	
Thermal Conductivity by LFA	0.4W / (m.K)	ASTM E1461
Dielectric Constant	3.8	Estimated
@ 100 kHz		

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<i>Property:</i>	<i>Value:</i>	<i>Test Method or Source:</i>
Dielectric Strength	480 V/mil	ASTM D149 Method A
Bulk Resistivity	1.4*E14 ohm-cm	Jandel 4 point probe
Non volatile content	100 %	
Service temperature	-40~150C	Estimated from raw material

*** This TDS contains values that have been updated. The values reported in this technical data sheet are typical values of the product, and are highly dependent on test conditions and methodology. We actively seek the most precise and accurate ways to measure and interpret performance of our products, and to update estimated values with measured values. The formula has not been revised or changed in any way. Although the values on paper have changed, you can expect the same performance of the product.

INSTRUCTIONS:

1. Bulk containers should be inverted every two to three weeks to reduce the accumulation of fillers on the bottom of the containers, lower storage temperature between 5~15C should lengthen its shelf life and reduce filler settlement. Inventory should be rotated on a FIFO (first in, first out) basis.
2. Bulk format: weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. A power mixer is not suggested because its viscosity and agitation heat increasing product temp. Do not pour from mixing container, transfer to a new container as residual unmixed material may cause a tacky spot on the surface of the casting. Maintain adequate velocity during dispensing to ensure complete mixing.
3. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
4. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

SHELF LIFE AND STORAGE: 12 months at 25 °C in bulk package
Specialty packaging may be less.

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). Products in this state will not usually cure to normal and expected properties. In extreme cases it may appear solid and cured. Fluctuating temperatures (within 5 to 50 °C) aggravate this phenomenon. Heating the individual component to 50 to 60 °C while stirring can usually restore products to original state.

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