TECHNICAL DATA SHEET
EPA1200R2

Room 9,11 Floor, Chuangxin Building Block 1#, No.1, Technology Road, Technology Chuangxin Park, West of Dayabay, Huizhou City, Guangdong, China
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DESCRIPTION

Tacusil EPA1200R2 Black is a highly filled, medium viscosity, casting resin designed for applications requiring moderate thermal conductivity, high flexibility, and low CTE. It also contains abrasive aluminum oxide filler, which introduces wear considerations for wetted components. It is recognized under the Component Recognition Program of Underwriters Laboratories Inc., (File# E528842) for UL Standard 94.

EPA1200R2 Black will reach handle cure within 24 hours at room temperature and final cure within 72 hours. Final cure properties can be achieved more quickly by the application of heat after product has gelled. Cure times and temperatures typical for most applications range from 2 hours at 65 °C to 30 minutes at 100 °C. EPA1200R2 is low halogen content and compliant to the latest Reach Regulations (SVHC 223Items)

TYPICAL PROPERTIES

Property:	*Value:*	*Test Method or Source:*
Color	Black	Visual
Mix Ratio By weight By volume	Part A to Part B 1 to 1 1 to 1	Calculated
Cure Schedule	24 hours @25 °C for handle cure 72 hours @25 °C for full cure 2 hours @ 65 °C	
Viscosity – Part A Viscosity – Part B Viscosity - Mixed	112,000 cps @1/s 35,000 cps @1/s 44670 cps @1/s	Rheometer parallel plate 25mm@1/s
Specific Gravity – Part A Specific Gravity – Part B Specific Gravity - Mixed	2.01 1.94 1.98	Calculated
Pot Life, defined as time to double viscosity	15 minutes	Rheometer parallel plate 25mm@1/s
Gel Time	60 minutes	Gardco Hot Pot Gel Timer
Glass Transition Temperature/Tg	55°C	Extrapolated from Resinlab EPA1200
Hardness	80 Shore D	ASTM D2240
Water Absorption	0.05% after 24 hours	ASTM D570

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Tensile Properties: Strength Elongation Modulus	4500 psi 30% 83,000 psi	ASTM D638
Lap Shear Strength 0.010" bond line Al to Al	3364 psi	ASTM D1002
Thermal Conductivity Steady State @ 25 °C	1.07 W/(m.K)	Extrapolated from Resinlab EPA1200
Dielectric Constant / Dissipation Factor @ 100 Hz @ 100 kHz	4.3, 0.030 3.8, 0.030	Extrapolated from Resinlab EPA1200
Coefficient of Thermal Expansion by TMA	56 ppm/ °C below Tg 123 ppm/ °C above Tg	ASTM E831 TMA, 5 °C/min
Temperature Range	-40 to 150 °C**	

** Temperature Rating is based on average design requirements and is not intended as a guarantee of suitability for all applications operating at that temperature

*** 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.

INSTRUCTION

1. Bring both components to room temperature prior to mixing.
2. Cartridge format: Mixer should be attached keeping the cartridge vertical and any air pocket purged this way. After the mixer contains material, the mixer tip can be dropped to dispense pre-bleed amount. Attach a new static mixer with each cartridge, then pre-bleed the first 3 inches of dispensed material or until a uniform color is obtained. Maintain adequate velocity during dispensing to ensure complete mixing.
3. Bulk format: weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. 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.

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4. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
5. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

STORAGE & SHELF LIFE

12 months at 0~10°C in pail packing

Specialty packaging may be less.

NOTE:
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. Storage at 0~10 °C is optimum for most products.