



TECHNICAL DATA SHEET 810089

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

TEL (86 752) 5533798 FAX (86 752) 5533798-811

DESCRIPTION:

Tacusil™ 810089 is a moisture curing STPU (Silane Terminated Polyurethane) for plastics, metals and glass. The curing system of this product is alkoxy. It is not stinky and has fast curing properties. This resin is different from the traditional PU which contains isocyanate. This product has better adhesion strength than silicone type products.

FEATURES:

- Used for various substrates bonding.
- Flexible and relieve internal stress.
- Work in a wide range of temperatures.
- Non-volatile low molecular weight siloxane compounds that would not contaminate electronic devices.
- One component product without mixing - easy to use.
- Room temperature stable in storage.
- Fast cure in the atmosphere – Tack free in a short time.
- Complies with the 2011/65/EU RoHS regulations.

TYPICAL PROPERTIES: All properties given are at 23 °C unless otherwise noted.

Property:	Value:	Unit:
Color	Black	
Appearance	Liquid	
Viscosity 25 °C, S14 10rpm	37,000 - 56,000	cps
Viscosity 25 °C, S14 1rpm	53,000 - 99,000	cps
Specific Gravity	1.17	
Surface Dry Time, 25°C	8	min
Initial Cured Time, 25°C	15	min
Through Cured Time, 25°C	7	days
Hardness	47	Shore A
Glass Transition Temp.	< -20	°C
CTE, ppm	189	ppm

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Water Absorption Ratio (25 °C /24hr)	1.89	%
Elongation	315	%
Volume Shrinkage	2.92	%
Thermal Conductivity	0.21	W/mK
Shear Strength		
PC vs. PC	13	kgf/cm ²
ABS vs. ABS	9	kgf/cm ²
PMMA vs. PMMA	27	kgf/cm ²
PET vs. PET	14	kgf/cm ²
PVC vs. PVC	30	kgf/cm ²
PS vs. PS	23	kgf/cm ²
PA6 vs. PA6	28	kgf/cm ²
SPCC vs. PC	31	kgf/cm ²
Copper vs. Copper	40	kgf/cm ²
SUS vs. SUS	26	kgf/cm ²
Glass vs. Glass	25	kgf/cm ²
Al vs. Al	27	kgf/cm ²
Peel Strength		
NBR	1.5	kgf/25.4mm
SBR	1.4	kgf/25.4mm
EPDM	0.6	kgf/25.4mm
Silicone Rubber	0.4	kgf/25.4mm
Volume Resistivity	1.02* 10 ¹¹	ohm-cm
Surface Resistivity	3.54* 10 ¹²	ohm
Dielectric Constant	4.0	100Hz
	3.9	1KHz
	3.5	1MHz
Dielectric Strength	13	KV/mm
Temperature Range	-40 - 100	°C

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INSTRUCTIONS:

1. It should be applied to a clean surface which is free of dirt, grease or mold release. In many cases, a simple solvent wipe is sufficient.
2. Pour or brush this product onto the substrates, it does not recommend to stir to avoid interfusing the air. This product will be cured with the air. The curing properties depend on its thickness, curing temperature and relative humidity.
3. The bottom of the resin might not be cured in thicker application, such as casting, because the bottom of the resin contacts with moisture rarely. It is recommended to prolong the curing time in order to let the moisture spread from the surface to the bottom. It can also cast the resin two times. Cast the resin to the half height at the first time. When the surface is tacky, cast the resin for the second time.
4. Use this product as soon as possible after opening the original packages. When not using, please replace the lid tightly and store in a cool and dry place.
5. Cure time on the really part will depend upon factors such as part geometry, materials to be bonded, bondline thickness and humidity. Cure schedule should be confirmed with actual production parts and equipment.
6. The cured resin is not harmful to human when touching the skin.

STORAGE & SHELF-LIFE:

This product should be kept without any possibility of moisture exposure. Replace the lid immediately after use. This product has a six-month minimum shelf life when stored in dark place below 14~34°C in original, unopened containers.

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