

TPUAD - THERMAL PU ADHESIVE

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DESCRIPTION

Thermal PU adhesive is a two-component thermal conductive structure adhesive, which can be cured at room temperature or quickly by heat.

This product is a double tube thixotropic, 1:1 ratio, high strength, high thermal conductivity, flame retardant polyurethane structural adhesive, can bond Al, PET, SMC, BMC and other composite and metal materials.

TYPICAL APPLICATIONS:

Suitable for new energy power lithium battery PACK assembly, to undertake heat transfer, buffering, high strength fixation and flame retardant requirements of energy materials, especially for Al, PET and other substrates with excellent bonding strength.

PART NUMBER:

Type	Sides	Resin	Conductivity	Shore	Thickness
XXX	X	X	XX 30	XXX	XXXX
			Thermal conductivity equal to 3 W/mK		



RoHS 3 / REACH
Last updated compliance directive



Properties	UNITS	VALUES
Before the curing		
Basic raw materials	-	A: Polyol, B: Isocyanate
Color	-	A: Black, B: White
Density	g/cm ³	A: 2,3+/-0,3, B: 2,6+/-0,3
Viscosity (A/B)7#@5rpm	mPa.s	A: 300000; B: 284000
Viscosity (A/B)7#@5rpm	mPa.s	A: 272000; B: 165000
After mixing		
Color	-	Black
Ratio (volume ratio)	-	1:1
Viscosity	-	Thixotropy
After curing		
Hardness	Shore D	60 ^{+/-5}
Density	g/cm ³	2,45
Tensile strength	MPa	14,6
Elongation at break	%	40
Shear strength (A1-A1)	MPa	9,5
Volume resistivity	Ωcm	4,55x10 ¹²
Surface resistivity	Ωcm	1,63x10 ¹³
The breakdown voltage	Kv/mm	13,5
Coefficient of thermal conductivity	W/mK	2,0 ^{ASTM D5470}
Working temperature	°C	-40°C~85°C
Flame retardant@2mm	-	UL 94 V-0
RoHS	PASS	I EC 62321
Holagen	PASS	EN14582
REACH	PASS	EN14372

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CHARACTERISTICS

100% solid content, no harmful volatiles, non-toxic, environmental protection

Good adhesion, suitable for a variety of substrates. Excellent chemical resistance, excellent strength

SURFACE TREATMENT

- 1) The surface of the stick substrate will be polished by sandblasting machine or grinding wheel to remove the rust and oxidation layer on the surface.
- 2) Clean the polished substrate surface with no residual solvent or cleaning agent.
- 3) After cleaning the substrate surface should be sizing as soon as possible, so as not to rust again, oxidation or pollution after cleaning the surface.
- 4) After cleaning the substrate surface do not touch by hand, if the hand touched, be sure to use a cleaning agent to clean again.
- 5) No liquid shall enter the surface to be bonded during sizing.

PREPARATION MIXING

Use the supporting glue gun to directly squeeze the glue to the part to be bonded.

Storage & Transportation

Store in a cool and dry place, below 25°C+/-5°C.

Packaging and Validity

50 ml/ double tube, 400 ml/ double tube, 5 gallons/drum, valid for 6 months.

Safety

This product is safe and non-toxic after curing, but should avoid contact with skin before curing, if accidentally splashed into the eyes, should be quickly washed with a lot of water, please refer to the company's material Safety Performance Data Sheet (MSDS).