EverTherm™

Technical Data Sheet

EVPU4500-A-20AB is a two-component thermally 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 which can bond Al, PET, SMC, BMC and other composite and metal materials.

Material Properties

• 100% solid content, no harmful volatiles, non-toxic, environmentally friendly. Good adhesion and suitable for bonding a variety of substrates. Excellent chemical resistance and bond strength.

Applications

- Suitable for new energy power lithium battery pack assembly, to provide heat transfer, buffering, high strength bonding and flame retardant. Polyurethane structural adhesive, can bond Al, PET, SMC, BMC and other composite and metal materials.

Surface Treatmant

1) The surface to be bonded should be polished by sandblasting or grinding to remove aby rust and oxidation.
2) Clean the polished substrate surface with non-residual solvent or cleaning agent.
3) After properly cleaning, the substrate surface should be fitted as soon as possible to avoid rust and contamination to re-occur.
4) After the substrate surface has been thoroughly cleaned avoid skin contact with the surface to prevent surface oil residue.
5) The surface must remain completely dry and clean during fitting and bonding.

Prepare by mixing : use the adhesive gun to directly squeeze the mixture to the surface.

EVPU4500-A-20AB Thermally Conductive Adhesive

Item	Unit	Test value
Before the curing		
Basic raw materials	/	A: polyols; B: Isocyanate
Color	/	A: black; B: white
Density	g/cm3	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#@10rpm	mPa.s	A:272000;B:165000
After mixing		
olor	/	Black
Ratio (volume ratio)	/	1:1
Viscosity	/	Thixotropy
After curing		
Hardness	ShoreD	60±5
Density	g/cm3	2.45
Tensile strength	MPa	14.0
Elongation at break	%	30
Shear strength (Al-Al)H=0.2mm	MPa	9.5
Volume resistivity	Ω.cm	4.55*1012
Surface resistivity	Ω.cm	1.63x1013
Dielectric Breakdown Voltageh@AC	V	13500
Thermal Conductivity	W/(m.k)	2.0/ASTM D5470
Working temperature	℃	-40℃~85℃
Flame retardant@2mm	/	UL 94 V-0
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372

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