GLT-132BL89

GLUDITEC

Tin-free, moisture curing, modified silicone adhesive

INTRODUCTION

GLT132BL89 is a highly thixotropic, anti-sagging adhesive. Because of the EU starts to restrict DBT so we design this product. GLT132BL89 is dealcoholized neutral resin, and has minimum erosion to substrates. This resin is environmental, mild, odor-free and easy to use with good adhesion and flexibility to plastics, metals and glass. This product is a flexible silicone that is used widly in various areas..

TYPICAL UNCURED PROPERTIES

	GLT132BL89
Composition Polyether resin	Polyether resin
Appearance	Liquid
Color	Black
Viscosity*25oC, S14 10 rpm, cps	12,000~20,000
Thixotropic Index	>3
Specific Gravity 25oC	1.26
Solvent Content, %	0

TYPICAL UNCURED PROPERTIES

Surface Dry Time 25 oC, min	7
Initial Cured Time, 25oC, min	30
Full Curing Time, 0.5mm, 25 oC*50%RH, hrs	1
Full Curing Time, 0.65mm, 25 oC*50%RH, hrs	1.5
Full Curing Time, 0.85mm, 25 oC*50%RH, hrs	4
Full Curing Time, 1.1mm, 25 oC*50%RH, hrs	8
Full Curing Time, 2.7mm, 25 oC*50%RH, hrs	12
Full Curing Time, 2.9mm, 25 oC*50%RH, hrs	16
Full Curing Time, 3.5mm, 25 oC*50%RH, hrs	24

CAUTION

Some findings indicate a lack of potential for carcinogenicity with the compositions of this product by long term recurrent application to the skin. However, contact with skin is likely to produce mild transient reddening. It is important to remove adhesive from skin with soap and water thoroughly. DO NOT use solvents for cleaning hands. This product is of moderate acute toxicity by swallowing. If swallowed, call a physician. Avoid contact with eyes. In case of contact, flush with water for at least 15 minutes and get medical attention immediately. For specific information on this product, consult the Material Safety Data Sheet

FEATURES

1. This resin has flexible properties and absorb fracture energy.
2. This product has stable properties in a wide range of temperature.
3. This product does not volatilize low molecular weight siloxane compounds. It will not pollute the electronic devices.
4. This resin is one component product without mixing. It is easy to use.
5. This product has stable properties and is able to storage in the room temperature.
6. This resin will fast cure in the air. It can have surface dryness in a short time.
7. This prodcut complies to the 2011/65/EU RoHS regulations.
8. This product complies to chlorine < 900ppm, bromine < 900ppm, chlorine + bromine < 1500ppm.

DIRECTION OF USE

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 propeties depend on its thickness, curing temperatrue 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 rarel y. 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 repla ce the rid tightly and store in a cool and dry place.
5. Cure time on the really part will depend upon fators 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.

TYPICAL CURED PROPERTIES

Glass Transition Temp.,oC	<-43
CTE*, ppm, <Tg	135
CTE*, ppm, >Tg	181
Hardness (Durometer) ASTM D2240-03, Shore A	75
Water Absorption Ratio (25oC /24hr), %	0.64
Elongation, %	135
Volume Shrinkage, %	0.24
Young's modulus, Mpa	7.902
Shear Strength, PC vs. PC, kgf/cm2	49
Shear Strength, ABS vs. ABS, kgf/cm2	35
Shear Strength, PMMA vs. PMMA, kgf/cm2	46
Shear Strength, PET vs. PET, kgf/cm2	54
Shear Strength, PVC vs. PVC, kgf/cm2	44
Shear Strength, Cu vs. Cu, kgf/cm2	49
Shear Strength, SUS vs. SUS, kgf/cm2	55
Shear Strength, Glass vs. Glass, kgf/cm2	46
Shear Strength, Al vs. Al, kgf/cm2	55
Peel Strength, NBR, kgf/25.4mm	3.5
Peel Strength, SBR, kgf/25.4mm	3.1
Peel Strength, EPDM, kgf/25.4mm	1.9
Peel Strength, Silicone Rubber, kgf/25.4mm	0.3
Thermal Conductivity W/mK	0.69
Surface Resistivity, Ω	3.50*10^12
Volume Resistivity, Ω.cm	3.15*10^11
Dielectric Constant 100KHz	3.8 (0.02)
Dielectric Constant 1KHz	3.4 (0.04)
Dielectric Constant 1MHz	3.0 (0.05)
Dielectric Strength, KV/mm	14
Temperature Range, oC	-45~150

STORAGE AND SHELF LIFE

170ml Laminated hose, 300ml HDPE Plastic Pipe Storage and Shelf Life:

This product should be kept without any pos sibility of moisture exposure. Replace the lid immediately after use. Shelf life of this is product is one year when stored in dark place below 14~34oC in original, unopened containers.

30ml, 50ml Plastic syringe put in vacuum bag with a desiccant in an aluminum foil bag:

This product should be kept without any possibility of moisture exposure. Replace the lid immediately after use. Shelf life of this product is one year when stored in dark place below 14~34oC in original, unopened containers.

Thermal Strength/Thermal Aging

Thermak Strength, Al vs. Al after curing, 25oC*50%RH*7 days

Temperature	Shear Strength, kg/cm2
25°C	55
50°C	55
80°C	55
100°C	55
120°C	53
150°C	32

Thermal Aging, -40°C /1hr ~ 100°C / 1hr, Shear Strength, kgf/cm2

Cycles	Shear Strength, kgf/cm2
0	55
100	55
200	55
300	55

High Temperature and Humidity, 80oC*90%RH, Shear Strength, kgf/cm2

Time,	Shear Strength, kgf/cm2
0	52
24	55
72	70
168	81