NOVATTANE 2100

2-component PU structure adhesive

PRODUCT DESCRIPTION

The NOVATTANE 2100 is a structure adhesive with very high mechanical performances for structure bonding a large variety of substrates: mainly composites (GRP, epoxy, etc.) but also thermoplastics, metal, wood, concrete, fibrocement, etc.

- Thixotropic (it does not sag).
- Very fast cure at room temperature.
- Good resistance to temperature, humidity and weathering.
- Very high mechanical resistance.

PRODUCT CHARACTERISTICS

Chemical Class	Polyurethane
Appearance(mixed)	Gray
% Solids by Volume	100
Shelf life, months	12

TYPICAL PROPERTIES OF UNCURED MATERIALS

Adhesive Part	
Appearance	Milky
Specific gravity@25 ºC	1.23
Viscosity@25 ºC, Brookfield	
Spindle #92, 20 rpm, cP	50000~90000
Thixotropic Index, 2rpm/20rpm	3.3
Activator Part	
Appearance	Black
Specific gravity@25 ºC	1.87
Viscosity@25 ºC, Brookfield	
Spindle #92, 20 rpm, cP	50000~90000
Thixotropic Index, 2rpm/20rpm	2.3
Mixed	
Mix Ratio, by vol, Resin to Hardener	100 : 100
Mix Ratio, by wt, Resin to Hardener	100 : 152
Working time @ 25ºC, mins	3~4
Fixture time @ 25ºC, hrs	0.5
Full cure @ 25ºC, days	7

TYPICAL PROPERTIES OF CURED MATERIALS

Fully Cured Product (7 days @ 25 ºC)

Density(cured), g/cm^3	1.55
Coefficient of thermal conductivity, ASTM E1461, W/(m·K)	0.5
Dielectric strength ASTM D149, kV/mm	13
Shore D hardness, ASTM D2240	70
Tensile strength, ASTM D638, MPa	30
E modulus, ASTM D638, MPa	2650
Elongation at break, ASTM D638	5~10%
Shear strength on Stainless steel, ASTM D1002, MPa	12.97
Shear strength on Galvanized steel, ASTM D1002, MPa	13.92
Shear strength on Al alloy 3003, ASTM D1002, MPa	10.03
Shear strength on Al alloy 6061, ASTM D1002, MPa	11.03
Shear strength on Al, ASTM D1002, MPa	10.01
Shear strength on PET film, ASTM D1002, MPa	1.51

TYPICAL CURING PROCESS

7days @ 25℃. For ultimate chemical and thermal resistance, allow parts to cure overnight at room temperature, then follow with 2hrs of 80℃ exposure.

SURFACE PREPARATION

The surfaces must be dry, degreased and dust free. The treatment may be varied according the substrate (paper sanding, degreasing, Corona treatment, etc.): consult with the technical service.

APPLICATION INSTRUCTIONS

1. Apply mixed PU directly to one surface in an even film or as a bead.
2. Assemble with mating part within recommended working time.
3. Apply firm pressure between mating parts to minimize any gap and ensure good contact (a small fillet should flow out the edges to display adequate gap fill).

PRECAUTIONS

Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.

STORAGE

Store the unopened product in a cool, dry, well ventilated location away from sources of heat. Optimal storage temperatures should range between **10 ºC (50 ºF) and 30 ºC (86 ºF).** Product removed from the containers during use should not be returned to original containers in order to avoid potential contamination.

CONVERSIONS

(°C x 1.8) + 32 = °F
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

WARRANTY

ITW will replace any material found to be defective. Because the storage, handling and application of this material are beyond our control, we can accept no liability for the results obtained.

NOTE

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For technical assistance, please call: 86-021-54265119

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