

One Component Epoxy Adhesives

EPOXY RESIN

XNR3503

--- Description ---

- | **Curable at 70 - 80°C**
- | **Good thermal adhesive strength**
- | **Long shelf-life**

200.123

The information given in this publication is based on the present state of our knowledge but any conclusion and recommendations are made without liability on our part.

Buyers and users should make their own assessment of our products under their own conditions and for their own requirements

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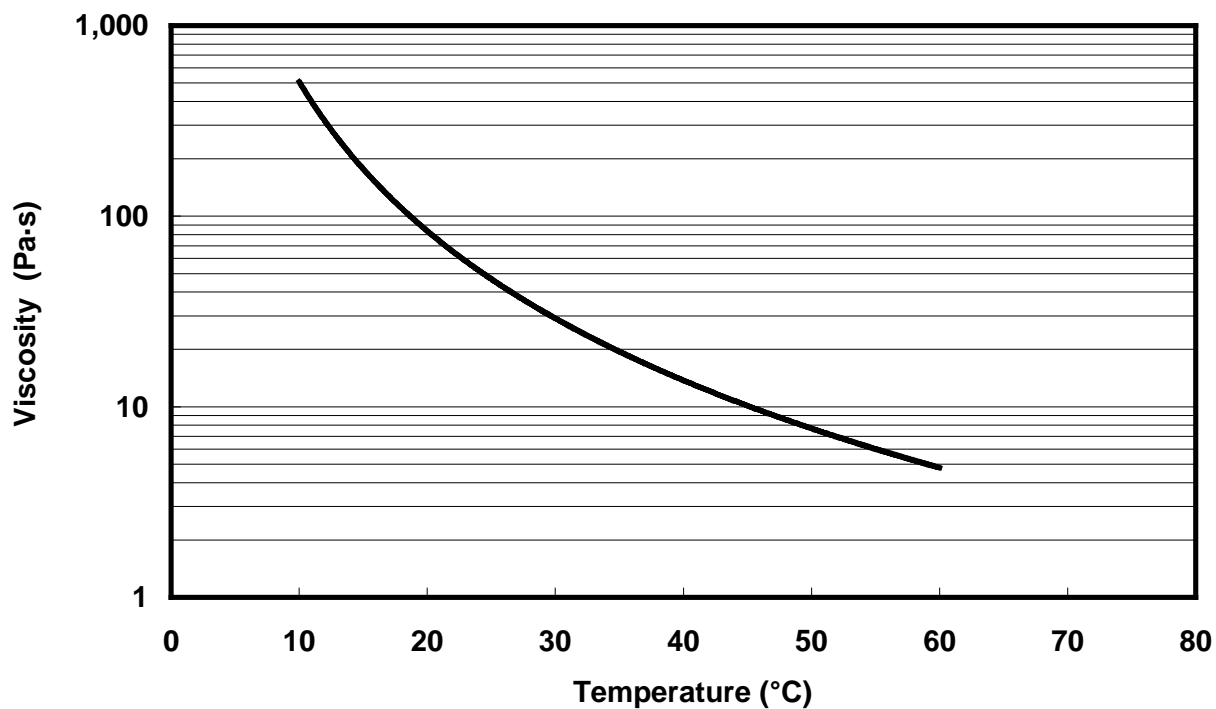
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u **Typical Properties**

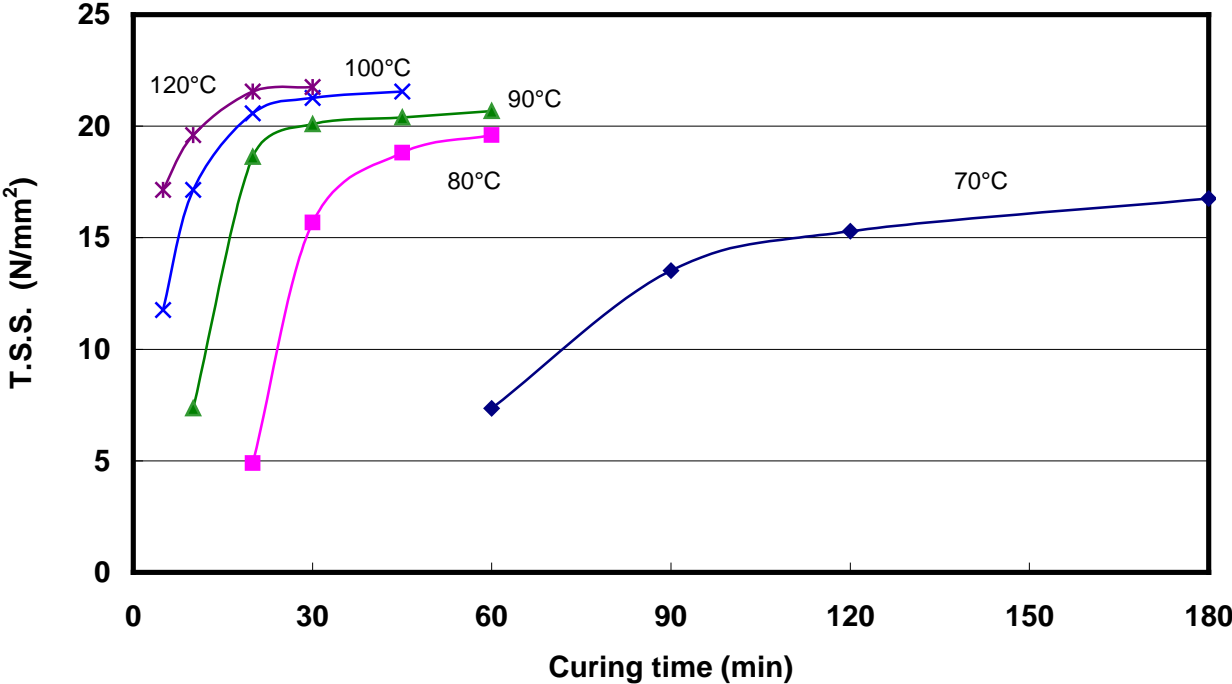
Item	EPOXY RESIN XNR3503
Aspect	Black paste
Viscosity (25°C)	48 Pa·s
Gelation Time (100°C)	180 s
Flash point (Cleveland open cup)	no ignited (solidifies at 100°C)
Specific Gravity (25°C)	1.44
Storage stability (0 - 10°C)	6 months

Viscosity vs. temperature

u **Curing condition**

Curing temp.(°C)	Minimum curing time (min)
80	50
90	30
100	15

Tensile shear strength vs. curing condition
(Tested at 25°C)



Properties of Cured Resin

U Physical Properties

Curing Condition : 120°C/60min

<i>Item</i>	<i>Test Method</i>	<i>Value</i>
Tensile Strength	ASTM D-638	51 N/mm ²
Flexural Strength	ASTM D-790	68 N/mm ²
Modulus of Elasticity in bending	ASTM D-790	4.2 GPa
Compressive Strength	ASTM D-695	127 N/mm ²
Tensile Shear Strength	ASTM D-1002	21 N/mm ²
Heat Distortion Temperature	ASTM D-648	124 °C
T _g	DSC Method	115 °C
Coefficient of Linear Thermal Expansion	TMA Method	39 × 10 ⁻⁶ K ⁻¹
Water Absorption (25°C/24h)	JIS K-6911	0.10 %

U Electrical Properties

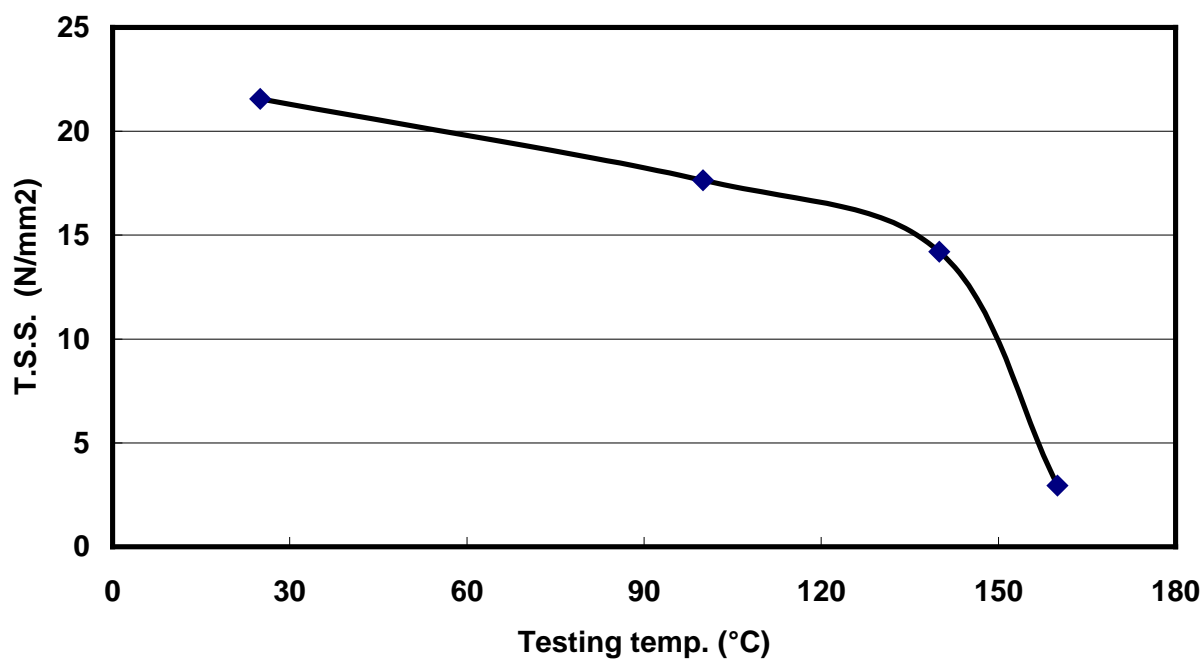
<i>Item</i>	<i>Test Method</i>	<i>Value</i>
Dielectric Constant (10 kHz)	ASTM D-150 25°C	3.9
	100°C	4.1
Dielectric dissipation Factor (10 kHz)	ASTM D-150 25°C	0.009
	100°C	0.008
Volume Resistivity (500 V)	ASTM D-257 25°C	2.0 × 10 ¹⁵ W·cm
	100°C	1.9 × 10 ¹³ W·cm
Dielectric Strength	JIS K-6911 25°C	17 kV/mm

U Adhesive strength

Tested according to the following method

T.S.S	
Substrates	Mild steel : JIS G-3141,SPCC-D (1.6' 25' 125 mm)
Surface preparation	Abraded with emery cloth #120 and degreased with acetone
Over lap	10 mm, single
Testing speed	5 mm/min

T.S.S. vs. Temperature



Tg vs. curing condition