



Three Bond International, Inc. Technical Data Sheet

TB1530D **ONE COMPONENT, MOISTURE CURING, ELASTOMERIC ADHESIVE**

Information

TB1530D is a one-component, non-solvent and moisture curing, elastomeric adhesive. This adhesive cures rapidly upon exposure to moisture in the air forming a tough elastomer over time. TB1530D provides excellent adhesion to most substrates without the use of a primer. Additionally, TB1530D is an environmentally friendly adhesive: odor-free, solventless, and isocyanate free.

Applications

TB1530D is a multipurpose adhesive for various materials: sealing, casting and potting of metal, plastic, wood etc. Unlike conventional adhesives, TB1530D has a tacky stage after exposure to moisture for approximately 5 minutes in ambient conditions. During this stage TB1530D can act as a pressure-sensitive adhesive without the aid of jigs for fastening. TB1530D is free of low-molecular cyclic siloxanes making it more desirable than silicones for electronic applications.

Typical Properties

1. Uncured Material

Property	Units	Value	Method
Main Component	-	Silyl-Ended Special Polymer	-
Appearance	-	Gray Paste	3TS-201-02
Non-volatile content (80°C × 2 hrs.)	%	98	3TS-217-02
Viscosity (20 rpm)	Pa•s {P}	20{200}	3TS-210-02
Specific gravity	-	1.39	3TS-213-02
Tack Free Time	Minute	5	-

2. Cured Material (Condition: 23°C ´ 50% R.H. ´ 7 days)

Item	Unit	Value	Method
Tensile Strength	MPa(kgf/cm ²)	3.2(32)	3TS-320-01
Elongation	%	220	3TS-320-01
Hardness	JIS A	34	3TS-215-01

3. Electric Property

Properties	Units	Value	Method
Volumetric resistivity	$\Omega \cdot m$ { $\Omega \cdot cm$ }	1.7×10^{10} { 1.7×10^{12} }	3TS-401-01
Surface resistivity	Ω	3.0×10^{13}	3TS-402-01
Dielectric constant	200Hz	-	3TS-405-01
	1kHz	-	
	1MHz	-	
Dielectric loss tangent	200Hz	-	3TS-405-01
	1kHz	-	
	1MHz	-	

**4. Lap Shear Strength (MPa(kgf/cm²)) (3TS-301-13)
(Condition: 23°C ´ 50% R.H. ´ 7 days)**

Substrate	Value	Failure Mode
Aluminum	2.5(25)	CF ¹
Steel (SPCC-SB)	2.9(29)	CF ¹
Acryl	2.6(26)	CF ¹
PPO	2.1(21)	CF ¹
ABS	1.3(13)	CF ¹
Nylon 66	2.2(22)	CF ¹
PC	2.4(24)	CF ¹
Polystyrene	1.2(12)	AF ²
PET	1.4(14)	AF ²
Plywood	2.0(20)	CF ¹

1.) CF – Cohesive failure. 2.) AF– Adhesive failure. 3.) SF- Substrate failure

5. T - Peel Strength (kN/m(kgf/25mm)) (3TS-304-23)

(Condition: 23°C ´ 50% R.H. ´ 7 days, open time 5 minutes)

Substrate	Value	Failure Mode
Aluminum	2.5(6.5)	CF ¹
Canvas	0.93(2.4)	CF ¹

These are typical properties and not product specifications.