



A brand of ITW Polymers Adhesives North America

**Technical Data Sheet**

2/19/2016

**Dev-Thane™ 5**

**Description:** A two-part, fast setting. Primerless high performance urethane adhesive for bonding many different substrates such as steel, aluminium, ABS, urethane, and composites.

**Intended Use:** Bonds steel, aluminium, stainless steel, galvanized steel, concrete, wood, glass, ABS, and urethanes with no primers.

**Product features:**

**Limitations:** When dispensing through a pneumatic gun use only 30-35 psi of pressure for good mixing. Use Devcon's #14291 mix nozzle with our pneumatic gun, and #14293 with our manual gun for efficient mixing  
Shelf Life: 1 Year

**Typical Physical Properties:**

*Technical data should be considered representative or typical only and should not be used for specification purposes.*

**Cured 7 days @ 75° F**

<b>Adhesive Tensile Lap Shear[ABS]</b>	<b>630 psi (Substrate Failure)</b>
<b>Adhesive Tensile Lap Shear[AL]</b>	<b>1,270 psi</b>
<b>Adhesive Tensile Lap Shear[concrete]</b>	<b>1,200 psi</b>
<b>Adhesive Tensile Lap Shear[GBS]</b>	<b>2,750 psi</b>
<b>Adhesive Tensile Lap Shear[Glass]</b>	<b>Substrate Failure</b>
<b>Adhesive Tensile Lap Shear[SMC]</b>	<b>895 psi</b>
<b>Adhesive Tensile Lap Shear[SS]</b>	<b>1,840 psi</b>
<b>Adhesive Tensile Shear[galvanized mtl]</b>	<b>1,575 psi</b>
<b>Cure Shrinkage</b>	<b>0.0014 in./in.</b>
<b>Dielectric Strength</b>	<b>350</b>
<b>Gap Fill</b>	<b>good</b>
<b>Service Temperature</b>	<b>-40°F to 200°F</b>
<b>Shore Hardness</b>	<b>63D</b>
<b>Solids by Volume</b>	<b>100</b>
<b>Specific Volume</b>	<b>19.6 in.(3)/lb.</b>
<b>Tear Resistance</b>	<b>400 pli</b>
<b>Tensile Elongation</b>	<b>200%</b>
<b>Tensile Strength</b>	<b>2,100 psi</b>
<b>Tpeel</b>	<b>65-75 pli</b>

**TESTS CONDUCTED**

Adhesive Tensile Shear ASTM D 1002  
Dielectric Strength, volts/mil ASTM D 149  
Tear Resistance ASTM D 624  
Tensile Strength (Epoxies) ASTM D 638  
Cured Hardness Shore D ASTM D 2240  
Maximum Elongation ASTM D 412  
Cure Shrinkage ASTM D 2566  
T-Peel Strength ASTM D 1876

**Uncured**

<b>Color</b>	<b>Grey</b>
<b>Coverage/lb</b>	<b>300 sq. in./50 ml. @ 0.01"</b>
<b>Fixture Time</b>	<b>45 minutes</b>
<b>Full Cure</b>	<b>24 hours</b>
<b>Functional Cure</b>	<b>4 hours</b>
<b>Mix Ratio by Volume</b>	<b>1:1</b>
<b>Mix Ratio by Weight</b>	<b>1:1</b>
<b>Mixed Density</b>	<b>11.75 lbs./gal</b>
<b>Mixed Viscosity</b>	<b>45,000 cps</b>
<b>Viscosity</b>	<b>Resin: 45,000 cps: Curing Agent: 45,000 cps</b>
<b>Working Time</b>	<b>5 min. @ 75°F</b>

**Surface Preparation:** Clean surface by solvent-wiping any deposits of heavy grease, oil, dirt, or other contaminants. Surface can also be cleaned with industrial cleaning equipment such as vapor phase degreasers or hot aqueous baths. If working with metal, abrade or roughen the surface to significantly increase the microscopic bond area and increase the bond strength.

**Mixing Instructions:** ---- Proper homogenous mixing of resin and hardener is essential for the curing and development of stated strengths. ----

25 ML DEV-TUBE  
1. Squeeze material into a small container the size of an ashtray.

2. Using mixing stick included on Dev-tube handle, vigorously mix components for one (1) minute.
3. Immediately apply to substrate.

**50 ML/400ML/490 ML CARTRIDGES**

1. Attach cartridge to Mark V™ [50ml] 400ml manual or pneumatic dispensing systems.
2. Open tip.
3. Burp cartridge by squeezing out some material until both sides are uniform (ensures no air bubbles are present during mixing).
4. Attach mix nozzle to end of cartridge.
5. Apply to substrate.

**Application Instructions:**

1. Mount cartridge onto manual gun or pneumatic gun .
2. Attach mix nozzle .
3. Clip mix nozzle back to desired orifice size.
4. Squeeze cartridge allowing first THREE inches of material to discharge until unified mixture is extruding from nozzle.
5. Apply to surface and attach other substrate quickly, as you have 5 minutes of working time to use the product. Substrates can be clamped with a bond line thickness as small as 0.007".

**Storage:**

Store in a cool, dry place.

**Compliances:**

RoHS II

**Chemical Resistance:**

*Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F*

Cutting Oil	Excellent	Toluene	Poor
Gasoline (Unleaded)	Fair		
Hydrochloric 10%	Excellent		
Isopropanol	Fair		
Methyl Ethyl Ketone	Poor		
Motor Oil	Excellent		
Sodium Chloride Brine	Excellent		
Sodium Hydroxide 10%	Excellent		

**Precautions:**

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

**For technical assistance, please call 1-855-489-7262**

**FOR INDUSTRIAL USE ONLY**

**Warranty:**

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

**Disclaimer:**

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Polymers Adhesives North America makes no representations or warranties of any kind concerning this data.

**Order Information:**

**14500 400 ml cartridge**  
**14503 50 ml cartridge**