

Flex Welder™

Description: A toughened, highly-filled structural adhesive that stays super flexible and able to bond flexible plastics with outstanding peel.

Intended Use: Recommended for bonding nylons and its alloys, modified polyesters, epoxy composites, and plastics (flexible or semi-flexible).

Product features:
Minimal surface preparation
Thixotropic/non-sagging
Room temperature cure
Excellent impact, peel, and shear resistance
Bonds dissimilar substrates

Limitations:

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

T-peel	15-20 pli
Impact Resistance	20 ft.lb./in.[2]
Tensile Elongation	130-140%
Shore Hardness	65 Shore D
Gap-Fill	0.375 in.
% Solids by Volume	100
Adhesive Tensile Lap Shear[ABS]	1,300 psi
Adhesive Tensile Lap Shear[AL]	1,607 psi
Adhesive Tensile Lap Shear[GBS]	1,500 psi
Specific Volume	28.40 in[3]/lb.

TESTS CONDUCTED

Adhesive Tensile Shear ASTM D 1002
 Cured Hardness Shore D ASTM D 2240
 Impact Resistance ASTM D 950
 T-Peel Strength ASTM D 1876

Uncured

Color	Off-white
Viscosity	Adhesive: 46,000 cps; Activator: 40,000 cps
Weight	Adhesive: 8.18 lbs./gal.; Activator: 8.1 lbs./gal.
Mixed Viscosity	70,000 cps
Mix Ratio by Volume	1:1
Mix Ratio by Weight	1:1
Mixed Density	8.14 lbs./gal.
Flashpoint	51°F
Working Time	8-10 min. @ 72°F, 22°C
Fixture Time	40-45 min. @ 72°F, 22°C
Functional Cure	2-4 hrs.
Full Cure	24 hrs.
Service Temperature	-67°F - 250°F

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 optimize 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.

- 35ML/50 ML/380ML/400 ML CARTRIDGES
1. Attach cartridge to Mark 5 dispensing system.
 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. Apply mixed product 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 of product should flow out the edges to display adequate gap fill.)
4. Bond line thickness of mixed adhesive should be @ .015"-.030" for optimum adhesion.

For very large gaps:

1. Apply product to both surfaces
2. Spread to cover entire area OR make a bead pattern to allow flow throughout the joint

Let bonded assemblies stand for recommended functional cure time prior to handling.

CAPABILITIES:

Can withstand processing forces
Do not drop, shock load, or heavily load

Storage:

Store in a cool, dry place.

Compliances:

None

Chemical Resistance:

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

Acetic (Dilute) 10%	Fair	Sulfuric 10%	Fair
Ammonia	Fair		
Cutting Oil	Very good		
Gasoline (Unleaded)	Very good		
Glycols/Antifreeze	Excellent		
Hydrochloric 10%	Fair		
Motor Oil	Very good		
Sodium Hydroxide 10%	Very good		

Precautions:

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

For technical assistance, please call 1-800-933-8266

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 Devcon makes no representations or warranties of any kind concerning this data.

Order Information:

14345 47 ml DevPak