Technical Data Sheet
Version 3. 04/2023

Flexane® Brushable

Description:
A tough, rubber-like urethane compound for making a broad range of repairs to protect against wear, abrasion, and noise reduction.

Intended Use:
Industrial Use: Protect equipment surfaces from wear and abrasion.
Protect processing equipment such as coating hoppers, lining chutes, pump volutes, impellers, and fan housings.

Features:
Bonds with primers to metal, concrete, rubber, wood, and fiberglass, Excellent tear resistance, Mixes easily Coats up to 50 mils in one pass, and Highly resistant to impact and abrasion

Limitations:
Suitability of product is determined by the end user for their application and process.
Keep from freezing. The resin may crystalize at temperatures below 50°F. This does not affect the properties of the product
If after opening, resin has an opaque, whitish color, apply lid and allow can to stand at 70°F overnight or until resin becomes clear.

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 (24°C)	Typical Values	Standard Tests
Abrasion Resistance	90 mg loss per 1,000 revol.	Cured Hardness Shore D ASTM D 2240
Cured Shrinkage	0.23 in/in (cm/cm)	Dielectric Constant ASTM D 149
Dielectric Strength	340 volts/mil (13.39 Kv/mm)	Maximum Elongation ASTM D 412
Hardness	86 Shore A	Cure Shrinkage ASTM D 2566
Maximum Elongation	600%	Tensile Strength (Urethanes) ASTM D 412
Maximum Operating Temperature	Dry: 180°F (82°C); Wet: 120°F (49°C)	Tear Resistance ASTM D 624
Percent Solids by Volume	77%	
Tear Resistance	400 pli (70 N/mm)	
Tensile Strength	3,500 psi (24 MPa)	
Uncured Properties @ 72°F (23°C)		
Color	Black	
Coverage (50mils / 1.27mm)	520 in2/lb (7401 cm2/Kg)	
Cure Time	24 hours	
Functional Cure	18 hours	
Mix Ratio	80 resin : 20 curing agent by weight	
Mixed Viscosity	40,000 cP	
Pot Life	45 min. @ 75°F (24°C)	
Specific Volume	26 in3/lb (0.94 cm3/g)	

Surface Preparation:
For METAL SURFACES, thoroughly clean area to be repaired, rebuilt, or lined with Devcon® Cleaner Blend 300. Remove any oil, grease, or dirt. Roughen surface by grinding with a coarse wheel or an abrasive disc pad. To prime this surface, apply a coat of Devcon FL-10 Primer and allow to dry tack-free for 5-15 minutes. If the metal surface requires maximum tear resistance or is exposed to moisture, or if submerged in water, use Devcon® FL-10 and Devcon® FL-20 Primer.

For RUBBER SURFACES, thoroughly clean area with an abrasive pad and Devcon® Cleaner Blend 300. Surface can also be roughened with a grinding wheel so that it is coarse and free from oil and dirt that may clog the "pores" of the rubber. Wipe or roughen surface with Cleaner Blend 300 until the cloth no longer picks up the color of the rubber. The rubber should appear new or deeper in color. To prime this surface, apply a coat of Devcon® FL-20 Primer and allow to dry tack-free for 15-20 minutes. Use Devcon®FL-40 Primer on "hard-to-bond" rubber surfaces as this gives ultimate peel resistance. Multiple coats may be necessary for porous rubber surfaces.

For MAXIMUM ADHESION, sandblast the surface with an angular abrasive until a minimum depth profile of 2-3 mils is met. Blast to near-white finish specification SSPC-SP5 (Steel Structure Painting Council). Prime surface immediately after sandblasting to prevent oxidation.

Mixing Instructions:
---- To ensure proper cure speeds and hardness, mix Flexane at a temperature between 65°F-85°F (18-29°C). ----

FOR 1 LB. UNITS
1.Add hardener to resin.
2.Vigorously mix with screwdriver or spatula for two minutes, while continuously scraping material away from sides and bottom of container. NOTE: Flexane putties will thicken rapidly during these first two minutes of mixing, but this DOES NOT mean that the polymer is curing.
3.Transfer the mixed material to the plastic container (included in kit).
4.Wipe spatula clean, and stir again for two more minutes.
5.Continue to mix until a uniform, streak-free consistency is obtained.

FOR 400ML CARTRIDGES:
1.Attach mix nozzle to cartridge
2.Follow application instructions; no mixing is required.

FOR 10 LB. UNITS:
Use a propeller-type Jiffy Mixer Model ES on an electric drill.

Mix until color is uniform and consistent (approx. 4-6 min.), while continuously scraping material away from sides and bottom of container.

NOTE: Completely submerge propeller, otherwise large amounts of air will be added resulting in air bubbles on the finished product's surface.

Application Instructions:

---- FOR MAXIMUM ADHESION, apply a suitable Devcon primer to all substrates prior to application. ----

Metals	FL-10 Primer
Rubber	FL-20 Primer
Wood	FL-20 Primer
Fiberglass	FL-20 Primer
Concrete	FL-20 Primer
Rigid Plastics	FL-20 Primer (2 coats)

1. Brush a thin coat of Flexane over the substrate, then pour from one side of the mold to the other side, so as to evacuate any air as the Flexane fills the area.
2. Gently blow hot air over the finished surface to ensure a perfect mold with no blow holes or air entrapment. Use a hot air gun and and gently wave over the surface to break all the air bubbles.
3. Allow to cure ten (10) hours before returning equipment to light service. The repair may then be ground flush using a 24 or 36 grit sanding disc. Do not overheat the work surface. Full cure takes seven (7) days @ 70°F (21°C).

ADDITIONAL INFORMATION

Flex-Add Flexibilizer is used with Flexane 80 Liquid to produce a urethane with a durometer below 80A. This allows for custom mixing of urethanes for specific applications requirements. The chart below displays various Flex-Add amounts used with 1 lb. of Flexane and the resulting durometers. (See Flex-Add TDS for further information)

Flexane Accelerator is used to increase Flexane's cure speed at temperatures as low as 32°F. One-half tsp. (2 gms) of Accelerator reduces the cure time of 1 lb. of Flexane by 50%. Use 2 tsp. or less of Accelerator for each 1 lb. of Flexane. See Flexane Accelerator TDS for further information.

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 (24°C)

1,1,1-Trichloroethane	Poor
Aluminum Sulfate 10%	Very good
Cutting Oil	Fair
Hydrochloric 10%	Fair
Isopropanol	Poor
Methyl Ethyl Ketone	Poor
Phosphoric 10%	Fair
Phosphoric 50%	Fair

Potassium Hydroxide 40%	Very good
Sodium Hydroxide 50%	Very good
Sulfuric 50%	Very good
Xylene	Poor

Precautions: **FOR INDUSTRIAL USE ONLY:** Please refer to the appropriate **S**afety **D**ata **S**heet prior to using this product.

Warranty: ITW Performance Polymers 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.

Order Information:

Item No.	Package Size
15350	1 lb. kit
15260	10 lb.

Contacts:

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