Technical Data Sheet
Version 3. 09/2023

Flexane® High Performance Putty

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:
Excellent tear resistance, Mixes easily, Bonds (with primers) to metal, concrete, rubber, wood, and fiberglass, Highly resistant to impact and abrasion, Trowels on smoothly

Limitations:
Suitability of product is determined by the end user for their application and process. Keep from freezing. The resin may crystallize if exposed to temperatures below 50°F (10°C). This does not affect the properties of the product. If after opening, resin has an opaque, whitish color,apply lid and allow the can to stand at 70°F (21°C) 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
Cured Shrinkage	0.12 in/in (cm/cm)	Cure Shrinkage ASTM D 2566
Dielectric Strength	350 volts/mil (13.8 KV/mm)	Tensile Strength (Urethanes) ASTM D 412
Hardness	78 Shore A	Maximum Elongation ASTM D 412
Maximum Elongation	600%	Tear Resistance ASTM D 624
Maximum Operating Temperature	Dry: 180°F (82°C); Wet: 120°F (49°C)	Dielectric Strength, volts/mil ASTM D 149
Percent Solids by Volume	88%	Cured Hardness Shore A ASTM D 2240

Uncured Properties @ 72°F (23°C)	
Color	Black
Coverage (1/4" / 6.35mm)	94 in2/lb (1337 cm2/Kg)
Demolding Time	10 hrs
Functional Cure	16 hrs
Mix Ratio	94 resin:6 curing agent /wt
Mixed Viscosity	Putty
Pot Life	10 min. @ 75°F (24°C)
Specific Volume	23.5 in3/lb (0.849 cm3/g)
Taber Abrasion (H-18, dry)	0.119 cm3 (1000g, 1000 revs)
Tear Resistance	400 pli (70 N/mm)
Tensile Strength	4,500 psi (31 MPa)

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 (18.3°C to 29.4°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 4 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 – Using a short tight nap utility applicator Brush, apply a thin coat of Flexane HP Putty, to help wet the surface and to fill in difficult to reach voids and gaps.
2 – Spread required amount of the putty over the substrate with a spatula (stainless steel spreader) or a similar tool.
3 - Press the material firmly into all cracks and voids to ensure maximum surface contact while avoiding to entrapping air.
4 - Allow the product to cure ten (10) hours before returning equipment to light service. The repair may then be finished to a desired profile using a 24 or 36 grit sanding disc. Do not overheat the work surface. Cure to 100% capacity takes seven (7) days @ 70°F (25°C).

ADDITIONAL INFORMATION
Flex-Add Flexibilizer is used with Flexane 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 (0°C). 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 at room temperature, 70 °F (21°C)

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	Potassium Hydroxide 40%	Very good
Aluminum Sulfate 10%	Very good	Sodium Hydroxide 50%	Very good
Cutting Oil	Fair	Sulfuric 50%	Fair
Hydrochloric 10%	Fair	Xylene	Poor
Isopropyl	Poor	Phosphoric 10%	Fair
Methyl Ethyl Ketone	Poor	Phosphoric 50%	Fair

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**
15330	1 lb. kit

Contacts:

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