

## FLEXANE 80 LIQUID

### PRODUCT INFORMATION

	<u>Stock No.</u> 15800	<u>Package Size</u> 500g
Description	A tough pourable rubber compound for part encapsulation, rugged flexible moulds and patterns, holding fixtures and forming die pads. It can also used to form equipment linings that are abrasion-resistant and noise reducing.	
Recommended Applications	<ul style="list-style-type: none"> <li>• Pads for press brake forming</li> <li>• Lines process equipment to dampen noise</li> <li>• Protects equipment surfaces from wear and corrosion</li> <li>• Pouring concrete expansion joints</li> <li>• Casting flexible parts and moulds</li> </ul>	
Flexibility	Medium	

### PRODUCT DATA

Typical Physical Properties	Colour	Black		
	Mix Ratio by Volume	3.4:1		
	Mix Ratio by Weight	3.33:1		
	% Solids by Volume	100		
	Pot life at 25°C (mins)	30		
	Specific Volume (cc/kg)	956		
	Cured Shrinkage (cm/cm)	0.0018		
	Specific Gravity	1.046		
	Temperature resistance	Wet 49°C Dry 82°C		
	Coverage	0.956m <sup>2</sup> /kg @ 1mm		
	Cured Hardness (Shore A)	87		
	Tensile Strength (MPa)	14.5		
	Tear Resistance (N/mm)	44		
	Elongation (%)	375		
	Dielectric Strength (kV/mm)	14		
	Thickness per Coat (mm)	As Required		
	Functional Cure Time (Hours)	16		
	Recoat Time (Hours)	12-24		
Mixed Viscosity (cps) where applicable	10,000			
Chemical Resistance	<b>7 days room temperature cure (30 days) - Testing carried out 30 days immersion at 21°C</b>			
	Ammonia	Very Good	Methylene Chloride	Poor
	Cutting Oil	Poor	Sodium Hypochlorite 5% (Bleach)	Fair
	Isopropyl Alcohol	Poor	Sodium Hydroxide 10%	Very good
	Gasoline (Unleaded)	Poor	Sulphuric Acid 10%	Very Good
	Hydrochloric Acid 10%	Very Good	Xylene	Poor
	Methyl ethyl Ketone (MEK)	Poor		
	Excellent = +/- 1% weight change			
	Very Good = +/- 1-10% weight change			
	Fair = +/- 10-20% weight change			
Poor = > 20% weight change				



## BIGA GROUP

SPECIAL WELDING, SHIP / OFF SHORE / INDUSTRY SERVICE  
ENGINEERING, CONSULTING AND SURVEY  
[www.bigagroup.com](http://www.bigagroup.com)

## **APPLICATION INFORMATION**

Cure	Allow the Flexane to cure for 6 hours before returning equipment to light service. Once cured, the repair may be ground flush using a 24 or 36 grit open coat-sanding disc. Be careful to keep the grinder moving and do not overheat the work surface. De-mould Flexane Liquids in approximately 5-10 hours. Allow Flexane 80 Liquid to cure 24 hours before running moulds in operation.
Surface Preparation	<p><b><u>Metal Surfaces:</u></b> Thoroughly clean the area that is to be repaired, rebuilt or lined by using MEK, Acetone, IPA or similar. All oil, grease and dirt must be removed before applying Flexane material. All surfaces must be roughened by grinding with a coarse wheel or an abrasive disc pad.</p> <p><b><u>Rubber Surfaces:</u></b> Thoroughly clean the rubber area with an abrasive pad and MEK, Acetone, IPA or similar. You may take a grinding wheel and roughen the surface. The rubber surface must be coarse and free from oil and dirt clogged in the pores of the rubber. Using MEK, Acetone, IPA or similar, wipe or roughen surface until the colour of the rubber substrate no longer appears on cloth. The rubber should look new or a deeper black in colour.</p> <p><b><u>Concrete Surfaces:</u></b> Concrete being a very porous substrate requires multiple cleaning. Degrease the area with a suitable detergent based product and rinse thoroughly. A pressure washer is useful for quick and efficient cleaning. Let the floor dry thoroughly before applying the Primer and Flexane.</p> <p><b><u>Priming Surfaces</u></b></p> <p><b><u>Metal Surfaces:</u></b> On metal surfaces apply two coats of FL-10 Primer and allow to dry tack free for 15 minutes.</p> <p><b><u>Rubber Surfaces:</u></b> On rubber and urethane surfaces apply a coat of FL-20 Primer and allow to dry tack free for 15 . 20 minutes. On porous rubber surfaces, it may be necessary to do multiple coats.</p> <p><b><u>Concrete Surfaces:</u></b> Concrete being a porous substrate may need multiple coats for proper adhesion. Let Primer dry for 30 minutes between coats.</p> <p><b><u>Wood &amp; Fibreglass:</u></b> Use FL-20 Primer for all Wood and Fiberglass products. Softwoods will need two coats because of their absorption characteristics.</p> <p><b><u>Immersion Substrates:</u></b> Use Primers, FL-10 and FL-20 to coat any metal substrate that will be immersed in any aqueous solution. First apply the FL-10 Primer and let it dry for 60 minutes. Next coat with FL-20 Primer. Let it dry for 30 minutes before applying the Flexane material</p>
Mixing	Add curing agent to the Flexane resin container and stir vigorously for 2 minutes. Ensure that the two parts are fully mixed by scraping along the bottom and side of the container. For quantities larger than 500g use an electric drill and mixer to mix the Flexane material. Make sure the mixer attachment is completely submerged during the mixing process. If not you will be mixing in large amounts of air and this will sometimes cause bubbles in the finished product.



**BIGA GROUP**

SPECIAL WELDING, SHIP / OFF SHORE / INDUSTRY SERVICE  
ENGINEERING, CONSULTING AND SURVEY  
[www.bigagroup.com](http://www.bigagroup.com)

## Application

### Expansion Joints

These are areas between concrete slabs that are ~~stress~~ points. These areas move with pressure from underneath the concrete surface or from stress being applied from the top of the slab. To fill these cracks a special material like Flexane 80 Liquid is required to take the expansion and contraction that occurs in these areas.

- The crack must be cleaned to remove any loose particles and chips of concrete. Also make sure there is no grease or oil in the joint area, if so follow the degreasing procedure.
- Next check the depth of the expansion joint. If the concrete slab is 4+thick, the joint should only be half that amount
- Prime the joint using Devcon~~s~~ FL-20 Primer. Apply two coats to the concrete edges.
- Take a piece of round foam backer rod and insert into the joint. If this is not available, use a fine sand grain to fill the bottom of the joint exactly half way.
- Pour mixed Flexane 80 Liquid into the joint. Pour from one side of the joint and let the material fill the entire area. This helps all the air to escape, thus no ~~air~~ bubbles+. Do not overfill the joint area, as the Flexane material will run into the concrete. Leave a slight depression below your desired height.

### Lining Applications/Noise Reduction

Flexane has an outstanding quality of having ~~elasticity~~+. This is beneficial for applications requiring impact resistance such as feeder bowls in production plants, chutes in cement, coal or mining plants and cyclones. Lining applications require a good depth of coating along with the proper Primer for good adhesion.

- For good adhesion follow the cleaning method for the appropriate surface. A good surface profile is required for excellent adhesion.
- Abrade the surface of the wear area with an abrasive disc pad and clean thoroughly.
- Next apply a coating of FL-10 Primer. Let it dry thoroughly and follow with a coating of FL-20 Primer. Let dry for 30 minutes before continuing.
- Before applying the Flexane material ensure the substrate has a defined ~~butt joint~~+. Leaving an edge will create the possibility of the aggregate ~~undercutting~~+. the material. Apply the Flexane to the substrate. Apply at least 1/16+of the material if possible for better wear resistance to the substrate.

Note: Applying multiple coats to the substrate will ~~build up~~+.the wearing ability of the coating. A shelf life of 2 years from date of manufacture can be expected when stored at room temperature (22°C) in their original containers.

## Shelf life & Storage

## Precaution

For complete safety and handling information, please refer to Material Safety Data Sheets prior to using this product.

## Warranty

ITW 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.

For product information visit [www.bigagroup.com](http://www.bigagroup.com) / [www.devconeurope.com](http://www.devconeurope.com) alternatively for technical assistance please call +385 52 880 882 or send an e-mail to [biga@biga.hr](mailto:biga@biga.hr).



**BIGA GROUP**

SPECIAL WELDING, SHIP / OFF SHORE / INDUSTRY SERVICE  
ENGINEERING, CONSULTING AND SURVEY  
[www.bigagroup.com](http://www.bigagroup.com)