

# Devcon®

**MAINTENANCE  
REPAIR  
PRODUCTION AND  
TOOLING EPOXIES  
URETHANES  
ADHESIVES  
METAL TREATMENT  
PRODUCTS**



# Devcon®

*Longer operating life, less downtime, fast and dependable repairs when they are needed most, these are just some of the things DEVCON products do for companies in all aspects of manufacturing, mining and service industries.*

*For more than 40 years DEVCON has built a worldwide reputation as leaders in maintenance and repair products. The problems that DEVCON materials solve are so diverse it is almost impossible to categorise them, and new problems are being solved every day.*

*DEVCON maintenance and repair products will save you time and money.*

*We will show how to rebuild an abraded pump, repair a pipe, or put a damaged conveyor belt back into service. We can demonstrate how to protect your equipment and keep it running longer and more efficiently.*

*Out in the field, DEVCON technical personnel are ready with advice and experience to ensure any problem is overcome quickly, effectively and economically. Our nation wide network of Industrial Distributors means the product you need is available with a minimum of waiting.*

*The secret of DEVCON's success is QUALITY and SERVICE, backed by an ongoing RESEARCH and DEVELOPMENT program which is constantly searching for new products to meet the needs of industry.*

*There's a product in the versatile DEVCON range for practically every type of maintenance and repair application. All of them are easy to use, no special skills or tools are required.*

*So now, what will it be...*

**DOWNTIME or DEVCON!**

*DEVCON products are manufactured under licence in Australia by ITW Polymers & Fluids Pty Ltd*



## WARRANTY

All recommendations, technical information and test data contained in this product guide are based upon the results of controlled laboratory tests or of actual field test by independent companies. The company has made every effort to ensure that the data contained within this product guide is as up to date as possible. However, the company accepts no claim for any incorrect data contained within this product guide.

# Contents

---

Metal Repair Epoxies	4 - 5	
Abrasion Resistant Systems	6 - 7	
High Strength Adhesives	8 - 9	
Flexane Rubber Repairs and Urethane Casting Compounds	10 - 11	
Metal Treatment Products	12	
Flooring	13	
Hints for Working with Epoxies	14	
Technical Data	15 - 19	





# METAL REPAIR EPOXIES

*Versatile, durable compounds that do not require any special tools, heat or pressure for maintenance, repair and tooling applications. Available in putty and liquid forms, DEVCON METAL REPAIR EPOXIES are two component systems that harden by mixing the curing agent with the resin. Cured epoxies can be drilled, tapped, machined or painted. Choice of metal filling, application and performance characteristics allow the user to specify the best epoxy for the job. (For further technical information refer to Technical Data section.)*

---

## PLASTIC STEEL PUTTY (A)

A steel filled epoxy for maintenance, repairs, tooling and production applications. Plastic Steel Putty requires no special tools, heat or pressure, and once set can be drilled, tapped, machined and painted.

Because it hardens in about 4 hours and will not shrink, it is ideal for repairing pipes, valves and tanks, building up worn equipment, tooling and holding fixtures. Bonds to just about anything - including iron, steel, aluminium, brass, wood, glass, ceramics and concrete. Smaller pack sizes available (see page 8)

---

## PLASTIC STEEL LIQUID (B)

A low viscosity compound with all the properties of Plastic Steel Putty, but in a liquid form for accurate detail reproduction. Use to cast low cost patterns, moulds, holding fixtures, tools and dies.

---

## PLASTIC STEEL 5-MINUTE PUTTY (SF)

This super fast curing putty retains all the properties of Plastic Steel and is ideal for low temperature applications. A pot life of 5 minutes at 24° C makes it perfect for fast repairs to pipes, tanks and other essential equipment, putting them back into service in about 1 hour.

---

## ALUMINIUM PUTTY (F)

This light weight Aluminium filled epoxy has all the characteristics of an Aluminium finish. This non sagging, non rusting epoxy is ideal for repairing Aluminium parts, filling Aluminium castings and forming light weight prototypes.

---

## ALUMINIUM LIQUID (F2)

Devcon Aluminium Liquid is specially designed for applications requiring a pourable Aluminium epoxy. This pourable non rusting epoxy is ideal for accurate reproduction when casting low cost moulds, holding fixtures and patterns.

---

## FASMETAL 10 (HVAC)

Aluminium filled, high strength bonding, patching and sealing paste that bonds to Aluminium and other metals, ceramics, wood, concrete or glass. Fasmetal 10 is ideally suited for air conditioning repairs.



*Plastic Steel, the first metal fortified epoxy repair compound is still one of the most effective for a wide range of general metal repair and rebuilding applications.*



*Plastic Steel Liquid offers a fast and economical way of making holding fixtures*



*Stainless Steel Putty is ideal for making non-rusting repairs to stainless steel food processing equipment.*



## BRONZE PUTTY (BR)

This Bronze filled epoxy putty, with properties similar to Plastic Steel is ideal for repairing Bronze or Brass bushings, shafts and castings. Repair areas where brazing would be undesirable or impossible. The cured epoxy closely matches the properties of Bronze and is widely used in the Marine industry.

## STAINLESS STEEL PUTTY (ST)

Use wherever hygiene and corrosion resistance is important. Repair all types of machinery and equipment in non rusting Stainless Steel in meat packing plants, dairies, chemical and food plants.

## TITANIUM PUTTY

The technically advanced epoxy formulation of Titanium Putty makes this product the high performer of metal filled epoxies. A service temperature of 175°C, superior compressive strength, resistance to wear and a wide range of chemicals makes Titanium Putty the ideal epoxy to rebuild shafts, keyways, bearing housings and other high performance applications.

## HIGH TEMPERATURE MOULD MAKER (C1)

This very low viscosity Aluminium filled epoxy has exceptional strength in high temperature applications making it suitable for injection moulds, embossing dies, jigs and fixtures. Must be oven cured to achieve it's temperature resistance of 260°C.

## WET SURFACE REPAIR PUTTY (UW)

Use to repair pipes, tanks, valves and pumps in water treatment plants and paper mills whenever it is not possible to get parts and equipment completely dry. This outstanding epoxy will cure and bond in wet conditions and even under water at temperatures as low as 4°C. It is non shrinking and non rusting with exceptional tensile and compressive strength making it ideal for the marine industry.

### ORDERING INFORMATION

PRODUCT	STOCK NUMBER	PACK SIZE
<b>Plastic Steel Putty (A)</b>		
	10110	0.5kg
	10120	1.5kg
<b>Plastic Steel Liquid (B)</b>		
	10210	0.5kg
<b>Plastic Steel 5-min Putty (SF)</b>		
	10250	0.25kg
	10240	0.5kg
<b>Aluminium Putty (F)</b>		
	10610	0.5kg
<b>Aluminium Liquid (F2)</b>		
	10710	0.5kg
<b>Fasmetal 10 (HVAC)</b>		
	19770 2 tubes	184g
<b>Stainless Steel Putty (ST)</b>		
	10270	0.45kg
<b>Titanium Putty</b>		
	10760	0.45kg
<b>High Temp Mould Maker (C1)</b>		
	10361	0.5kg
<b>Wet Surface Repair Putty (UW)</b>		
	11800	0.5kg

### PRODUCT APPLICATION SELECTOR GUIDE FOR METAL REPAIR PRODUCTS

Application	Product	Mix Ratio (Wt/vol)	Pot Life (mins)	Functional Cure Strength (hrs)	Coverage (cm <sup>2</sup> /kg@5mm)	Operating Temp (°C)	Colour
Metal Rebuilding	Plastic Steel Putty (A)	9:1 / 2.5:1	45	16	860	120	Dark Grey
Levelling & Fixturing	Plastic Steel Liquid (B)	9:1 / 3:1	45	16	946	120	Dark Grey
Low-Temp Patching	Plastic Steel 5-min Putty (SF)	1.7:1 / 1:1	5	1	1084	93	Dark Grey
Food Grade Repair	Stainless Steel Putty (ST)	11:1 / 3.7:1	60	16	896	120	Grey
HVAC Repair	Fasmetal 10 HVAC	1:1 / 1:1	45	24	1264	120	Aluminium
Casting Repair	Aluminium Putty (F)	9:1 / 4:1	60	16	1264	120	Aluminium
Die & Mould Maker	Aluminium Liquid (F2)	9:1 / 5:1	45	16	1264	120	Aluminium
	High Temp Mould Maker (C1)	112:1 / 64:1	45@70°C		1176	260	Grey
Bronze and Brass Repair	Bronze Putty (BR)	9:1 / 3:1	35	16	896	120	Bronze
Wet Surface Repairs	Wet Surface Repair Putty (UW)	1.4:1 / 1:1	45		1250	93	Grey



# ABRASION RESISTANT SYSTEMS

*This group of technically advanced epoxy systems was developed to meet industry's requirements for repair materials to be used in extremely aggressive operating environments. DEVCON ABRASION RESISTANT EPOXIES offer a range of abrasion, corrosion and chemical resistance that allows the user to repair, protect and rebuild equipment in the most severe conditions.  
(For further technical information refer to Technical Data section).*

---

## WEAR RESISTANT PUTTY (WR-2)

A highly wear resistant, self lubricating compound for use on surfaces subject to sliding or fluid wear. This non shrinking epoxy can be used for building up and prolonging the life of shafts, pumps, valves, machine beds and for making general repairs. It is a fine ceramic filled epoxy that cures to a smooth low friction finish.

---

## FASMETAL PUTTY

Fasmetal Putty is a high performance, alumina-filled, 100% solids epoxy for making fast, dependable emergency repairs to industrial metal parts and appliances. Fasmetal Putty is used for repairing leaks in pipes carrying ores, coal, cement, sand and gravel, repairing cracks in bearing housings, rebuilding keyways and threads and for emergency repairs to circuit breakers and transformers. Fasmetal Putty is economical and convenient, hardens in 5 minutes and can be applied in temperatures as low as 5°C.

---

## CARBIDE PUTTY

An extremely tough epoxy compound filled with silicon carbide granules up to 2 mm in diameter. This product is capable of withstanding impact and abrasion from slurry to pulverised mineral particles of 2 mm. Excellent chemical and temperature resistance up to 120°C allows Carbide Putty to stand up to constant wear in pipes, elbows, coal pulverisers, slurry pumps and exhausters fans.

---

## CERAMIC REPAIR PUTTY

### **SUPERSEDES PUMP REPAIR PUTTY**

This non-sag, trowelable ceramic filled epoxy compound has been tested and proven in use to be a truly high performance product. It has outstanding wear resistance, excellent chemical and corrosion resistance and can withstand temperatures up to 175°C. Use to repair and protect processing equipment such as slurry, service water, centrifugal and ash pumps in power plants, pulp and paper mills, chemical and water treatment plants.

---

## BRUSHABLE CERAMIC

### **SUPERSEDES PUMP REPAIR LIQUID**

This product has all the properties of Ceramic Repair Putty in a liquid form. Brushable Ceramic is a low viscosity, alumina filled, brushable epoxy that provides a smooth, protective barrier against wear, abrasion, corrosion, erosion and chemical attack. Use Brushable Ceramic to protect pump casings and flange faces and to rebuild and seal heat exchanger tube sheets, impeller blades, valves, water boxes, fan blades and chutes and hoppers. Brushable Ceramic is available in three colours (red, blue, white).

---

## SPRAYABLE CERAMIC

Sprayable Ceramic is a ceramic-reinforced composite that can be sprayed in a manner similar to high-solids paints. It is ideal for protecting pumps, pump pads, paper machines, stacks, steel frames and tanks. Sprayable Ceramic exhibits excellent chemical resistance and is available in a red or blue colour. Sprayable Ceramic uses standard airless equipment and is capable of being sprayed on in a thickness of between 400 and up to 600µm in one pass.



*Ceramic Repair Putty protects equipment surfaces from damage due to wear and abrasion, extending service life and often eliminating the cost of replacement.*



*Wear Guard High Load offers an economical way to protect equipment surfaces from abrasion damage caused by particulate greater than 3mm.*



*Brushable Ceramic provides pumps and other equipment with a smooth protective barrier against wear, abrasion, corrosion, erosion and chemical, attack, and it fills holes and voids in castings.*



## CERAMIC WEAR COMPOUND

Designed to protect equipment against severe sliding abrasion. This product consists of small to medium sized ceramic beads dispersed in a wear resistant epoxy. It can be used for repairing pumps, chutes, hoppers, pipe elbows and valves.

## WEAR GUARD FINE LOAD

A high performance wear-resistant epoxy compound containing micro-high-alumina ceramic beads for wear and abrasion protection of equipment conveying fine particles. It is designed for use in equipment that handle particulates less than 3mm in diameter, withstands operating temperatures up to 150°C and it exhibits an outstanding resistance to a wide range of chemicals. Wear Guard Fine Load can be trowelled to form a smooth surface and can be applied to vertical or overhead surfaces.

## WEAR GUARD HIGH LOAD

This product has all the properties of Wear Guard Fine Load. However, it is designed for use in equipment that handle particulates greater than 3mm in diameter, withstands operating temperatures up to 150°C and also exhibits an outstanding resistance to a wide range of chemicals. Wear Guard High Load is ideal for protecting and repairing scrubbers, ash handling systems, pipe elbows screens and chutes.

## COMBO WEAR FC (FAST CURE)

Combo Wear FC is a high performance wearing compound that combines the abrasion resistance of high alumina ceramic beads with silicon carbide. This NON sag putty has excellent adhesion to metal, ceramic and concrete and will bond to a damp surface. Use to protect pipe elbows, housings, exhauster fans, repairs to coal fuel lines, bins and hoppers. Back in service in 1-1.5 hours at 24°C.

## ALUMINIUM WEAR RESISTANT PUTTY

A blended aluminium filled epoxy where exceptional durability and ruggedness are required. Combines low friction performance with outstanding wear resistance. Ideal for filling in voids in moulds, protecting and rebuilding interfacing metal wear surfaces subject to fluid and sliding wear. Protects metal from bi-metallic corrosion

### ORDERING INFORMATION

PRODUCT	STOCK NUMBER	PACK SIZE
<b>Wear resistant Putty (WR-2)</b>		
	11410	0.5kg
<b>Fasmetal Putty</b>	10780	0.34kg
<b>Carbide Putty</b>	10050	1.5kg
<b>Ceramic Repair Putty</b>		
	11705	0.5kg
	11700	1.5kg
<b>Brushable Ceramic</b>		
	11750 Red	0.5kg
	11755 Blue	0.5kg
	11770 White	0.91kg
<b>Sprayable Ceramic</b>		
	DE108 Blue	3.8ltr
	DE109 Red	3.8ltr
<b>Ceramic Wear Compound</b>	11680	1.5kg
<b>Wear Guard Fine Load</b>		
	11405	4kg
	11400	10kg
<b>Wear Guard High Load</b>	11490	10kg
<b>Combo Wear FC (Fast Cure)</b>	11450	4kg
<b>Aluminium Wear Resistant Putty</b>	10630	10kg

### PRODUCT APPLICATION SELECTOR GUIDE FOR ABRASION RESISTANT PRODUCTS

Application*	Product	Mix Ratio (Wt/vol)	Pot Life (mins)	Functional Cure Strength (hrs)	Coverage (cm <sup>2</sup> /kg@5mm)	Operating Temp (°C)	Colour
Sliding or Fluid Wear	Wear Resistant Putty (WR-2)/	9:1 / 4:1	60	16	1142	120	Dark Grey
	Aluminium Wear Resistant Putty	9:1 / 4:1	50	16	1196	121	Dark Grey
Chemical Resistant Coating	Brushable Ceramic	5.5:1/3.4:1	40	24	1.55m <sup>2</sup> /kg@0.4mm	176	Red, Blue
	Sprayable Ceramic	*14:2.5:1/ 7.1:2.1:1	40	24	10m <sup>2</sup> /3.8Ltr	176	Red, Blue
Metal Rebuilding	Ceramic Repair Putty	7:1 / 4.3:1	25	16	1292	175	Grey
Emergency Repair	Fasmetal Putty	1:1 / 1:1	4	1	1650	120	Grey
Agg. Less than 2mm dia.	Carbide Putty	8:1 / 4:1	50	16	1148	120	Dark Grey
Agg. Less than 3mm dia.	Wear Guard Fine Load	2:1 / 2:1	45	16	894	149	Grey
Agg. Less than 12.5mm dia.	Wear Guard High Load/	2:1 / 2:1	45	16	897	149	Grey
	Ceramic Wear Compound	1:1 / 1:1	45	16	910	93	Dark Grey
Fast Curing	Combo Wear FC	2:1 / 2:1	7-12	1.5	894	149	Grey

\* Mix ratio of Resin:Hardener:Thinner



# HIGH STRENGTH ADHESIVES

*DEVCON HIGH STRENGTH ADHESIVES are strong, dependable and easy to use. A good selection of DEVCON Epoxy Adhesives belongs in every maintenance tool box. A complete line - one suited for any do-it-yourself project. Industrial strength products, yet simple enough for anyone. Available in a variety of formulations, sizes and applicator options.*

*(For further technical information refer to Technical Data section.)*

---

## 5 MINUTE FAST DRYING EPOXY

A rapid curing, general purpose adhesive/encapsulant. Bonds rigid, durable substrates such as metals, glass, ceramics, concrete and wood in all combinations. Forms a clear, hard, rigid bond or coating (10MPa, 1500 psi) in minutes.

---

## 5 MINUTE THICK GEL EPOXY

A fast curing, thixotropic, non migrating adhesive, designed for filling gaps when bonding rough or smooth surfaces in vertical or overhead applications. Has a high tensile strength (17MPa, 2500 psi), good solvent resistance and bonds to metal, wood, concrete, glass, ceramic, china and much more.

---

## 2-TON CRYSTAL CLEAR EPOXY

Extremely strong, water resistant epoxy adhesive that forms a powerful bond (17MPa, 2500 psi) with ferrous and non ferrous metals, ceramics, glass, wood or concrete in any combination. A medium curing time for a strong non shrinking rigid bond that fills poorly mated surfaces, while providing excellent adhesion and impact strength.

---

## 2-TON WHITE EPOXY

Excellent for porcelain repair, water proof, resistant to most chemicals and a bond strength of (17MPa, 2500 psi). Works best on metal, wood, glass, ceramic, concrete, china and much more.

---

## PLASTIC STEEL "STEEL FILLED" EPOXY

A high strength bond (17MPa, 2500 psi) resistant to most chemicals and water proof. Works best on metals, steel, aluminium, copper, iron, pewter and more. Excellent for filling under speedy sleeves or where heat transfer is critical.

---

## METAL PATCH & FILL

This single tube product adds a new dimension to the adhesive line. Sets in 20 minutes at 24°C, works great on all types of metals that require a patch, fill, seal or repair. Good chemical resistance, temperature resistant to 204°C, drill, sand or paint after full cure.

---

## PLASTIC WELDER

A toughened structural adhesive formulated for bonding dissimilar substrates. Highly resistant to hydrocarbon fuels (gasoline, jet fuel, motor oil, hydraulic oil). Bonds PVC, fibreglass, ABS, steel, acrylics, polycarbonate, polyesters (PET; PBT), wood and ceramics. The final adhesive bond is designed to be load bearing and resistant to weathering, humidity and a wide variation in temperature.



*Devcon's new Dev-tube adhesive dispenser features a safer, easier-to-use design. its unique snap-open safety cap eliminates the need for a knife or razor to open it, while preserving unused adhesive for the next job. Other features include a convenient, snap-out mixing paddle moulded into the plunger handle.*



*Use Plastic Steel S-5 to fill a damaged shaft prior to fitting a speedy sleeve.*



*Keep several Magnum Epoxy Repair Sticks in your tool box for fast convenient repairs that can even be made under water and that harden in minutes.*





*MAGNUM EPOXY REPAIR STICKS are an easy solution to all maintenance and repair problems. The products can be used to rebuild, repair and restore damaged parts in order to get the equipment quickly back into service. Magnum Epoxy Repair Sticks are 100% solids, therefore they do not exhibit any shrinkage during cure. The hardened products can be drilled, tapped, filed, machined stained and painted. The products can be used to repair metal, copper ceramics, concrete, wood and many plastics.*

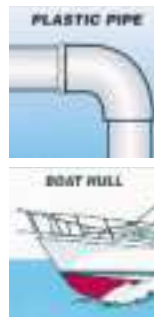
### MAGNUM STEEL REPAIR - INDUSTRIAL EPOXY STICK

Magnum Steel Repair is a steel reinforced epoxy adhesive for fast repair and bonds to iron, steel, aluminium, bronze, copper, brass, etc. Magnum Steel Repair fills voids and cracks in metal parts and can be used to repair pipes, valves, castings, tanks, engine blocks, fix stripped bolt holes, battery cases, metal tools, air ducts, appliances, motorcycles and many other auto and industrial applications. Magnum Steel Repair is excellent for renewing surfaces damaged by corrosion, abrasion and harsh environments.



### MAGNUM MARINE/ PLASTIC REPAIR - INDUSTRIAL EPOXY STICK

This product can be cured underwater in both fresh and saltwater and can be used on boats for fast emergency repairs and for permanent applications. Magnum Marine/Plastic Repair dries white, does not shrink, is non yellowing and rustproof. This product is excellent for metal and plastic repairs. For plumbing, the product is an excellent repair for white PVC pipe. Magnum Marine/Plastic Repair can be used to repair fish tanks, water tanks, pools, hot tubs, gutters, sprinkler heads, fish boxes, battery cases, sealing electrical wires to electrical junction boxes and many automotive, appliance and household uses.



### MAGNUM COPPER REPAIR - INDUSTRIAL EPOXY STICK

Strong, fast repair for plumbing applications. Excellent for repairing copper pipe, valves, copper fittings, plus auto radiator leak repairs.



#### ORDERING INFORMATION

**PRODUCT**  
**STOCK NUMBER**                      **PACK SIZE**

#### 5 Minute Fast Drying Epoxy

S-205	2 tubes	28.4g
S-206	2 tubes	71.0g
S-208	Dev tube	28.4g
S-209	Hobby Size	255g

#### 5 Minute Thick Gel Epoxy

S-210		28.4g
-------	--	-------

#### 2-Ton Crystal Clear Epoxy

S-31	Dev tube	28.4g
S-33	Hobby Size	255g

#### 2-Ton White Epoxy

S-30	2 tubes	56.8g
------	---------	-------

#### Plastic Steel "Steel Filled" Epoxy

S-5	2 tubes	56.8g
S-6	Dev tube	42.6g

#### Metal Patch & Fill

S-50		100g
------	--	------

#### Magnum Epoxy Sticks

51610	Steel	78.1g
71345	Copper	56.8g
81345	Marine/Plastic	56.8g

#### PRODUCT APPLICATION SELECTOR GUIDE FOR HIGH STRENGTH ADHESIVE EPOXY PRODUCTS

Application	Product	Application	Product	Application	Product
Fast-Cure Adhesive	5-Minute Epoxy	Porcelain Repair	2-Ton White Epoxy	Plastic Bonding; Bonding dissimilar substrates	Plastic Welder Magnum Marine/Plastic Repair
Self Fixturing	5-Minute Epoxy Gel	Heat Transfer	Plastic Steel	Copper Repairs	Magnum Copper Repair
Water-Resistant	2-Ton Clear Epoxy	Metal Repairs	Plastic Steel, Metal Patch and Fill Magnum Steel Repair		



# FLEXANE RUBBER REPAIR AND URETHANE CASTING COMPOUNDS

*DEVCON Flexane Urethane Compounds are the toughest, most durable group of room temperature curing urethanes available to industry. These two component systems are available in putty and liquid form with a choice of engineered performance characteristics for protecting equipment against abrasion, impact and noise control and for casting custom rubber parts and low cost moulds. Flexane Liquid urethanes are widely used to make cost effective, non damaging holding fixtures, ultrasonic welding nests, punch dies and in combination with putties repairs with a smooth, waterproof sealing coat.*  
(For further technical information refer to Technical Data section.)



*Use Flexane Putty to repair conveyor belts and rolls. It can also be trowelled on equipment surfaces to dampen sound and reduce vibration.*

## FLEXANE 80 PUTTY

A trowelable urethane that cures to a Shore A 87 hardness. Particularly easy to use, it requires no special tools or heat. Flexane 80 Putty is 100% solids, tear resistant, exhibits no cold flow and it retains its shape under pressure like rubber. Use to repair process equipment exposed to impact abrasion, vibration, expansion and contraction. Bonds to metal, concrete, rubber, wood and fibreglass surfaces. Flexane primers are recommended for maximum adhesion to metal, wood and concrete surfaces.

## FLEXANE 80 LIQUID

Liquid version of Flexane 80 Putty. Castable, non shrinking, urethane compound for making rugged, flexible moulds, forming dies, cast parts, non scratching holding fixtures and abrasion-noise resistant linings. Flexane 80 Liquid makes precision moulds that faithfully reproduce detail, will not change shape while curing, returns to original shape after 350% elongation and has a 10 hour demoulding time. Flexane primers are recommended for maximum adhesion to metal, wood and concrete surfaces.



*Use Flexane Liquids to mould small, quantities of rubber parts easily and economically.*

## FLEXANE 94 LIQUID

A castable, non shrinking, low viscosity urethane compound that cures to a rigid rubber material with a Shore A 97 hardness. Use Flexane 94 for applications that require a faster curing, more rigid urethane than Flexane 80 and shorter demoulding times. Makes flexible moulds and non-scratching holding fixtures. Pour and mould cast rubber replacement parts that may have been discontinued.

## FLEXANE BRUSHABLE

High performance, brushable urethane coating that cures to a medium hard rubber, Shore A 86 hardness, for protection against wear due to abrasion and impact. Having outstanding tensile strength and very good chemical resistance, this product is excellent for lining and protecting hoppers, chutes, pump impellers, feeder bowls and fans. Flexane primers are recommended for maximum adhesion to metal, wood and concrete surfaces.



*Flexane Brushable is an easily applicable finish that will protect your equipment from wear and corrosion*

## FLEXANE BELT REPAIR COMPOUND

A highly elastic, non shrinking, water resistant compound with a Shore A 75 hardness. For making fast, permanent emergency maintenance repairs to damaged conveyor belts, rubber rollers and many other rubber or elastometric components.

*FLEXANE PRIMERS are required for bonding of all Flexanes: Flexane 80 Putty, Flexane 80 Liquid, Flexane 94 liquid and Flexane Brushable.*



## FLEXANE METAL PRIMER - FL10

Provides excellent adhesion (4.5kg/cm) to all dry metals for all grades of Flexane. Use in conjunction with FL20 Primer on metal surfaces exposed to water immersion or requiring adhesion in excess of 9kg/cm.

## FLEXANE RUBBER PRIMER - FL20

Provides excellent adhesion to rubber, wood, fibreglass, concrete and cured Flexane.

### PRIMER SELECTION

Substrate	Primer	
	FL 10	FL 20
Metal, Dry (Adhesion 4.5kg/cm)	•	
Metal, Dry (Adhesion > 9kg/cm)	•	•
Metal (Water Immersion)	•	•
Concrete		•
Rubber		•
Cured Flexane		•
Wood		•
Fibreglass		•

## FLEX ADD

A urethane flexibiliser used to alter the flexibility of Flexane 80 Liquid to produce a urethane of any desired durometer below 80. Allows custom formulation of Flexane for specific application requirements. Allows one to match the existing hardness of "rubber for rubber" repairs. The lower durometer allows moulds to be more flexible for easier demoulding.

## FLEXANE ACCELERATOR

Ideal for applications where fast curing is essential. Flexane Accelerator speeds up the cure of all Flexanes at temperatures as low as 0°C. Half a teaspoon (2ml) of Flexane Accelerator will reduce the cure time of 0.45kg of all Flexanes by 50%.

### ORDERING INFORMATION

PRODUCT	STOCK NUMBER	PACK SIZE
<b>Flexane 80 Putty</b>		
	15820	0.45kg
	15830	4.5kg
<b>Flexane 80 Liquid</b>		
	15800	0.45kg
	15810	4.5kg
<b>Flexane 94 Liquid</b>		
	15250	0.45kg
	15260	4.5kg
<b>Flexane Brushable</b>		
	15350	0.45kg
<b>Flexane Belt Repair Compound</b>		
	15140	0.45kg
<b>Flexane Primers</b>		
	15980	
(FL10 - Metal Primer)		120ml
	15985	
(FL20 - Rubber Primer)		120ml
<b>Flex Add</b>		
	15940	250ml
<b>Flexane Accelerator</b>		
	15990	360ml

### PRODUCT APPLICATION SELECTOR GUIDE FOR FLEXANE RUBBER REPAIR & URETHANE CASTING PRODUCTS

Application	Product	Mix Ratio (Wt)	Pot Life (mins)	Shore A Hardness	Specific Volume (cm <sup>3</sup> /kg)	Oper. Temp (°C) max (dry/wet)	Demoulding Times (hrs)
Trowelable Rubber Repair	Flexane 80 Putty	72:28	20	87	848	82/49	10
Semi-Rigid Castable Rubber	Flexane 80 Liquid	77:23	30	87	957	82/49	10
Rigid Castable Rubber	Flexane 94 Liquid	69:31	10	97	957	82/49	5
Brushable High Performance Rubber	Flexane Brushable	82:18	45	86	939	82/49	N/A
Conveyor Belt Repair	Flexane Belt Repair	80:20	10	75	930	82/38	N/A



# METAL TREATMENT PRODUCTS

*DEVCON METAL TREATMENT PRODUCTS are high performance fluids and coating compounds designed to protect, prepare, clean and lubricate metal surfaces in industrial environments.*

*(For further technical information refer to Technical Data section.)*

## SAFETAP

SAFETAP is a high performance fluid for tapping, drilling, threading, boring, milling and reaming and is recommended for use with aluminium, steels, brass, titanium, alloys and many plastics. Cutting tools stay sharper longer because SAFETAP runs cooler and it's excellent lubricity helps prevent corrosion.

SAFETAP is safe because it contains NO 1,1,1, Trichloroethane, NO Chlorine, NO oils, NO Sulphur, NO silicones and NO solvents which can be potentially hazardous to your health and what's more SAFETAP works.

## STOP SEIZE (COPPER, NICKEL, SILVER)

Are heavy duty, high temperature water repelling compounds that protect against locking and cold welding of metal parts. They are used to lubricate and to permit ease of assembly and dismantling without seizure or distortion of components subjected to high temperatures and heavy contact pressures. Stop Seize helps to resist corrosion, galvanic action between dissimilar metals and helps to prevent fretting corrosion. They remain homogenous during storage and will not harden during service. Stop Seize is available in 3 forms (Copper, Nickel, Silver). Stop Seize Copper is used for the protection of carbon steel components found in all facets of engineering and operates in environments up to 1090°C. Stop Seize Nickel is recommended for use with stainless steel and other alloys where a copper based anti-seize compound is unsuitable. It operates in environments up to 1400°C. Stop Seize Silver is recommended for use with aluminium and aluminium alloys. It is suitable for use in environments up to 600°C.

## DEVCON Z COLD GALVANIZING COMPOUND

Devcon Z is a long lasting zinc coating that protects iron and steel from rust and corrosion. With a 93% pure zinc rich composition and a very good resistance to water, oil, petrol and other chemicals, Devcon Z seals out moisture and forms a galvanic cell with iron and steel. This action prevents rust from developing under the zinc coating. If the surface is scratched Devcon Z sacrifices itself to protect the base metal. Areas of application include the repair of galvanised equipment and metal structures damaged by welding or the environment such as metal buildings, fences, gutters and downpipes, metal roofs and metal window frames and doors.

## CLEANER BLEND 300

A safe multipurpose, non-trichloroethane degreaser for use on heavy grease and oil deposits on metal, as well as an excellent general purpose degreaser. Use Cleaner Blend 300 prior to applying any Devcon epoxy or urethane compound. Parts need no rinsing and Cleaner Blend 300 leaves no residue on components. It evaporates quickly making it ideal for dip tanks.

## DEV-SEAL

Dev-Seal is a high build epoxy for use as an external protective coating on plant and equipment where corrosion from the elements and chemicals is a problem. Dev-Seal goes on like paint (brush or spray applied), bonds to metal, concrete, wood, and brick and gives excellent coverage at 8m<sup>2</sup> per litre at 125µm D.F.T. Dev-Seal can also be used for sealing walls and floors.

### ORDERING INFORMATION

PRODUCT	STOCK NUMBER	PACK SIZE
<b>Cleaner Blend 300</b>		
	19515	1ltr
<b>Stop Seize</b>		
19020 Copper		0.5kg
19030 Nickel		0.5kg
19040 Silver		0.5kg
<b>Safetap</b>		
19122 Squeeze pack		500ml
19131		5ltr
<b>Devcon Z</b>		
<b>Cold Galvanising Compound</b>		
12000 Aerosol		400g
<b>Devseal</b>		
12620		3ltr



*Threaded fittings are protected against sealing and locking with Stop Seize high temperature lubricant.*



*Safetap liquid - helping you work with metals and plastics safely.*

*DEVCON Floor Savers are maintenance systems designed to help repair and maintain virtually any flooring surface in your plant using your own staff. Flooring compounds are two or three component systems for patching, sealing or skid proofing surfaces in industrial environments quickly and easily to form long lasting surfaces. (For further technical information refer to Technical Data section.)*

## FLOOR GRIP "ANTI SKID"

This durable epoxy can be used on steel, wood or concrete and produces a long lasting anti-skid surface for floors, ramps, stairs, catwalks, loading docks or anywhere a safety hazard exists. Floor Grip is easily applied by brush or roller and carbide granules are sprinkled over to provide a superb non slip finish. It is impervious to water, weather, oils, petrol and most chemicals and cures as low as 4°C.



*Devcon's Floor Grip Anti Skid provides a durable, non-slip surface on steel, wood or concrete, and is impervious to most liquid spills.*

## FLOOR PATCH

This extremely versatile and high performance product has approximately three times the compression strength of concrete. It can be used to resurface old or new concrete, sealing masonry walls, excellent for filling old anchor bolt holes or anchoring machinery in concrete or masonry as it is non shrinking and non sagging. Floor Patch has good impact strength and resistance to oils, petrol, water, alkalis and acids. Sets quickly and cures overnight.



*Remove all loose material and provide shoring to shape the repair by Floor Patch*



*Floor Patch is easily applied and can be coloured to match the surrounding surface.*

## ORDERING INFORMATION

PRODUCT	STOCK NUMBER	PACK SIZE
<b>Floor Grip</b>		
	13090	10kg
<b>Floor Patch</b>		
	13100 (2.8 Litre)	5kg
	13120 (13.9 Litre)	25kg



*Devcon's Floor Patch provides a durable anti-skid surface for a safer environment in the vicinity of machinery and other equipment that tends to leak oil or other fluids.*



*Floor Patch is also ideal for doing larger repairs.*

# HINTS FOR WORKING WITH EPOXY

"Hints for Working with Epoxy" is designed to familiarise the user with the basic principles of mixing and applying filled epoxy compounds as well as answer some specific questions that may arise in working with epoxy materials.

Devcon epoxy compounds are versatile and durable materials used for general maintenance, repair and tooling application. Mixing and application procedures are simple and the results will be very gratifying, providing you follow directions carefully. Proper performance of the material depends upon careful adherence to directions.

**The chemistry of epoxies.** Devcon epoxies are two component materials that cure, or harden, by chemical reaction between the resin and hardener when they are combined. This chemical reaction generates heat. It's important to keep the following principles in mind when mixing epoxies:

- The larger the mass of epoxy, the faster the cure.
- The higher the temperature, the faster the cure.
- For proper performance, epoxy must be mixed in specified ratios.
- Typical working time for 500g of epoxy at 24°C is 45 minutes. Functional cure is achieved overnight (16 hours).
- Specially formulated epoxies are available that offer fast cure time, extended core time, wet surface/low temperature cure, high heat resistance and exceptional tolerance to chemicals. When doing an epoxy application, be sure to specify the epoxy with the best performance characteristics for the job.

**High Temperatures.** When the temperature is above 24°C epoxy will cure more quickly. Epoxy should be mixed in small masses to prevent the material from curing too rapidly.

**Low temperatures.** Most epoxies will not cure properly at temperatures below 15°C unless the epoxy and, if possible, the part to be repaired are heated to room temperature. To promote curing of epoxy at low temperatures, see below.

**To speed up cure of epoxy,** the material should be mixed, applied to the repair area and warmed with a heat lamp or other heat source. Heat lamp should be placed about 0.5m from the epoxy. Never expose epoxy to a direct flame.

**To increase adhesion** make sure the application surface is free from oil, dirt and moisture. Clean the surface with Cleaner Blend 300, or similar solvent and wipe thoroughly. For maximum adhesion, particularly to a rusted or painted surface, we recommend sandblasting, abrading or chemically etching the surface.

**To prevent sticking of epoxy** to a surface, coat the surface with Rocol Dry Film Teflon\* Spray or other coating material such as Teflon\*, silicone or wax.

**Mixing.** Add hardener to resin and mix thoroughly. The compound should be a smooth, lump-free consistency after mixing for about four minutes. To insure thorough mixing of putty-type epoxies, particularly when mixing larger quantities, resin and hardener can be turned out onto a disposable surface and mixed with a stiff

spatula.

**For low-cost, convenient dispensing** of epoxy, use a clean polyethylene squeeze bottle or caulking container. This method is particularly suitable for grouting applications.

**To obtain a smooth finish** cover the uncured epoxy with a sheet of polyethylene or waxed paper. Remove the sheet when the epoxy is fully cured. The surface can also be smoothed by drawing a trowel moistened with water across the surface of the uncured material. Moisten the trowel with each stroke.

**Cure.** Most epoxy compounds will cure overnight (16 hours) at which time the material can be machined, drilled or painted. As previously described, the actual cure time of epoxy is determined by the size of the mass of epoxy and the temperature. Under some conditions the epoxy will reach full cure in less than 16 hours. For example, epoxy will be fully cured in only 4 hours when heat cured at 65°C.

## **Specially Formulated Epoxies**

The following Devcon epoxy compounds are formulated to perform under specific operating conditions. Choose the best epoxy for your application/operating environment.

**Fast cure.** Plastic Steel 5-Minute Putty (cures 60 min), Combo Wear Fast Cure (cures 70 min) Fasmetal Putty (cures 60 min).

## **Wet surface/low temperature cure.**

Choose Wet Surface Repair Putty which cures at 4°C.

**High temperature resistance.** For maximum operating temperatures in excess of 120°C, choose from the following: Titanium and Ceramic Repair Putty/Brushable Ceramic - max. 175°C.

High temperature. Mould Maker - max. 260°C.

**Chemical Resistance.** The following have excellent resistance to mineral acids and most organic solvents:

Titanium Putty, Ceramic Repair Putty/Liquid, Brushable Ceramic/Sprayable Ceramic and High Temp. Mould Maker.

**Corrosion Resistance.** To obtain best protection against corrosion choose from: Wear Resistant Putty, Titanium Putty, Ceramic Repair Putty, Brushable Ceramic/Sprayable Ceramic and Wet Surface Repair Putty.

**Abrasion Resistance.** Sliding abrasion - Wear Resistant Putty, Ceramic Repair Putty, Brushable Ceramic, Titanium Putty, Wear Guard Fine Load, Combo Wear Fast Cure, Fasmetal Putty. Sliding/Impact - Ceramic Wear Compound. Severe Impact - Carbide Putty.

**Machinable finish.** Choose Titanium Putty for shafts, keyways and other equipment where application surfaces must be machined to conform to exacting dimensions.

## **Casting Epoxies**

Dry Model and container completely before casting parts. This is particularly important when parts are made of porous material. For best results such parts should be sealed with two coats of lacquer.

Rocol Dry Film Teflon\* Spray, silicone, PTFE spray,

or wax should be applied to the model in order to release the cast part from the model. For detailed reproduction, we recommend giving the model three coats of hard finish wax, buffing each coat well between applications.

## **To eliminate bubbles when casting liquid epoxy:**

- Mix the resin and hardener slowly to avoid trapping air in the mixture.
- Brush a thin coat of epoxy on the model to be duplicated before casting the remainder of the epoxy.
- Pour the epoxy in a fine stream into one corner of the box containing the model. Do not pour back and forth.
- Position the model so the widest part is at the bottom of the box.
- Seal out any air under the model to avoid air being trapped in the epoxy while the material is curing.

**Shrinkage** of cast epoxy depends on the container and the amount of epoxy cast. A thick walled metal container will dissipate the heat generated by the curing epoxy and will minimise shrinkage. Sheet metal, wood and plastic containers, however, tend to hold heat and will cause shrinkage.

**To avoid warpage** in a large epoxy casting use a span depth ratio of 8 to 1: that is, for every 8cm of length, the ideal epoxy thickness is 1cm.

- Thinner sections can be cast if the epoxy is reinforced with angle iron, wire mesh or glass cloth.
- If a casting is thicker than 10cm, pour it in layers of 3.5cm to 5cm, allowing the epoxy to cool to room temperature before casting each layer.

**An epoxy die for forming metal** should have a radius equal to 3 times the thickness of the metal being formed if it is a soft metal of light gauge (22 and up). On heavier gauge metal the radius should be five times the thickness of the metal.

**To reduce the cost** of a large epoxy casting we recommend using sand, wooden blocks or other inexpensive material for the centre of the casting. Epoxy is then used for the more important wearing or working surface.

**To form sharp bends** in metal on an epoxy die, insert metal inserts or wear strips into the soft epoxy at the point where the greatest wear will occur.

**When fabricating an epoxy punch and die** we recommend using a high temperature sheet wax to allow for metal thickness.

**Still have a question about working with epoxy? If we haven't answered all your questions, please call your local Devcon office (see back cover). The full technical resources of Devcon are available to help you solve your problem.**

\* Teflon is a registered trademark of DuPont Corporation

# TECHNICAL DATA

## PRODUCT APPLICATION GUIDE

	PLASTIC STEEL PUTTY (A)	PLASTIC STEEL LIQUID (B)	PLASTIC STEEL 5 MIN PUTTY	ALUMINIUM PUTTY (F)	BRONZE PUTTY	STAINLESS STEEL PUTTY (ST)	TITANIUM PUTTY	HIGH TEMP. PUTTY	WET SURFACE MOULD MAKER (C1)	WEAR RESISTANT PUTTY (C1)	ALUMIN WEAR RESISTANT PUTTY	FASMETAL PUTTY (WR2)	CARBIDE PUTTY	CERAMIC PUTTY	BRUSHABLE CERAMIC REPAIR PUTTY	CERAMIC SPRAYABLE CERAMIC	WEAR WEAR CERAMIC	COMBO GUARD FINE HIGHLOAD	FLEXANE 80 & 94 PUTTY	FLEXANE 80 & 94 PUTTY	FLEXANE BRUSHABLE URETHANE	FLOOR BELT REPAIR COMPOUND	FLOOR GRIP™ ANTI-SKID	FLOOR PATCH	DEP-SEAL	
Anti-vibration mounts																										
Bearings - reseating worn/oversized	•	•				•																				
Casting repair	•	•	•	•	•	•			•	•	•															
Cast rubber parts																										
Chocking/levelling		•				•																				
Condensers/tube sheets									•	•	•			•	•											
Conveyor belt repairs																										
Cyclones							•								•	•	•									
Engine blocks	•			•																						
Exhausters												•			•	•	•									
Expansion joints																										
Feeder bowls - lining																										
Food processing equipment					•																					
Floor repair																										
Gaskets																										
Gearboxes	•		•	•																						
Holding fixtures		•																								
Hoppers/bins		•																								
Impellers									•	•				•	•											
Leaky pipes	•		•								•															
Lining chutes												•														
Metal forming dies		•		•							•															
Mould making		•		•			•			•																
Noise reduction																										
Pipe elbow lining								•		•	•	•	•		•	•	•									
Prototypes	•	•		•	•	•	•																			
Pulverisers/mills												•			•	•	•									
Pump repairs - slurry									•						•	•	•									
Pump repairs - water							•		•	•	•			•	•											
Rubber rollers																										
Shafts/keyways	•					•			•	•	•															
Tank repair	•					•			•	•	•															
Tank lining															•	•										
Tumbling barrels																										
Valve repair						•			•	•				•	•											

## SPECIAL FEATURES AND OPERATING CONDITIONS

Acidic conditions						•				•		•	•								•					•
Corrosion						•			•	•				•	•											•
Impact													•													
Low temperature cure 4°C								•																		
Machinable epoxy	•	•	•	•	•	•																				
Non-machinable epoxy									•	•	•	•	•	•	•	•	•									
Operating temp.above 120°C						•	•				•			•	•	•	•									
Sliding abrasion									•	•				•	•	•	•									
Wear and erosion						•			•	•	•			•	•	•	•									
Wet surface cure								•																		

# TECHNICAL DATA

## PHYSICAL PROPERTIES AND CHEMICAL RESISTANCE OF DEVCON EPOXY COMPOUNDS

Typical physical properties after 7 days @ 21°C

### USE OF THE CHEMICAL RESISTANCE TABLES

The data supplied has been generated over the years by observing the behaviour of Devcon products in use, laboratory testing and interpolation of our own testing and results contained in the literature. They are based on total immersion of the product in the specified chemical at ambient temperature. As such they can only act as guidelines for actual applications since factors such as, surface preparation, temperature, concentration and chemical combinations etc may significantly affect performance. Note that data for an emergency repair product, SF, refers to short term immersion only.

There is NO substitute for realistic testing.

There is NO substitute for talking to us - we may have information on a similar application indicating what products can and cannot be used.

Lastly, it often makes sense to test an application on a small scale by, for instance, coating only one pump in twenty or repairing an area of conveyor belt rather than the whole belt. If we are unsure of any application, in either a positive or negative way, we will always advise you to either test on a small scale or err on the side of caution.

The data is shown as a comparative resistance to attack

- 5 - Excellent, may be suitable for long term immersion.
- 4 - Good, suitable for medium term or intermittent contact.
- 3 - Fair, suitable for intermittent contact only.
- 2 - Poor, suitable for splash contact with Immediate clean - up only.
- 1 - Not recommended.

All products are good in water, leaded petrol, mineral spirits, ASTM #3 oil and propylene glycol.

Only ratings of 3-5 should be taken as any indication of suitability - testing is recommended for any 3 rating.

**CAUTION:** Epoxies are generally not recommended for long term exposures to concentrated acids and organic solvents. The information contained in these Chemical Resistance Charts is given in good faith and is believed to be reliable. We cannot assume responsibility for extrapolation of this data into situations which are different from the actual test conditions. It is the user's responsibility to determine the suitability of any of the products for actual use, in consultation with ITW Polymers and Fluids Pty Ltd.

Product Name	Colour	Mix Ratio by Wt. Resin:Hardener	by Vol. Resin:Hardener	Mixed Viscosity @ 24°C	Specific Volume cm <sup>3</sup> /kg	Coverage cm <sup>2</sup> /kg @ 5mm
Plastic Steel Putty	Dark Grey	9:1	2.5:1	Putty	430	860
Plastic Steel Liquid	Dark Grey	9:1	3:1	15-25,000	473	946
Plastic Steel 5-Min. Putty	Dark Grey	1.7:1	1:1	Putty	542	1084
Aluminium Putty	Aluminium	9:1	4:1	Putty	632	1264
Aluminium Liquid	Aluminium	9:1	5:1	15-25,000	632	1264
Fasmetal 10	Aluminium	1:1	1:1	Paste	622	1264
Bronze Putty	Bronze	9:1	3:1	Putty	448	896
Stainless Steel Putty	Grey	11:1	3.7:1	Putty	448	896
Titanium Putty	Grey	4.3:1	3:1	Putty	424	848
High Temp Mould Maker	Grey	112:1	64:1	3,000@70°C	588	1176
Wet Surface Repair Putty	Grey	1.4:1	1:1	Putty	625	1250
Wear Resistant Putty	Dark Grey	9:1	4:1	Putty	571	1142
Fasmetal Putty	Grey	1:1	1:1	Putty	622	1650
Aluminium Wear Resistant Putty	Dark Grey	9:1	4:1	Putty	598	1196
Carbide Putty	Dark Grey	8:1	4:1	Putty	574	1148
Ceramic/Pump Repair Putty	Grey	7:1	4.3:1	Putty	646	1292
Brushable Ceramic	Red, Blue	5.5:1	3.4:1	32,000	596	1.55m <sup>2</sup> /kg @ 0.4mm
Ceramic Wear Compound	Dark Grey	1.05:1	1:1	Putty	455	910
Wear Guard Fine/High Load	Grey	2:1	2:1	Putty	447	894
Sprayable Ceramic*	Red, Blue or White	*14:2.5:1	*7.1:2.1:1	33,600	592	10m <sup>2</sup> /3.8Ltr @ 400µm
Combo Wear Fast Cure	Grey	2:1	2:1	N/S Putty	447	894
Floor Grip "Anti Skid"	Black	3:1	2.3:1	2000	NA	0.6m <sup>2</sup> /kg @ 0.250mm
Floor patch	Beige or Grey	Mix Entire contents		Grout	NA Putty	0.2m <sup>2</sup> /L @5mm
Dev-Seal	Beige	4:1	2.8:1	NA	750	8m <sup>2</sup> /L @0.125m

\* Mix ratio of Resin:Hardener:Thinner

Product Name	Kerosene	Methanol	Toluene/Xylene	MEK	Chlorinated Solvents
Plastic Steel Putty	4	3	4	2	3
Plastic Steel Liquid	4	3	4	2	3
Plastic Steel 5 Minute Putty	4	3	4	2	1
Aluminium Putty	4	3	4	2	3
Aluminium Liquid	4	3	4	2	3
Fasmetal 10	4	3	4	2	3
Bronze Putty	4	3	4	2	3
Stainless Steel Putty	4	3	4	2	3
Titanium Putty	5	5	5	4	4
High Temperature Mould Maker	5	5	5	4	4
Wet Surface Repair Putty	4	3	4	2	3
Wear Resistant Putty	4	3	4	2	3
Fasmetal Putty	4	1	3	2	3
Aluminium Wear Resistant Putty	4	3	4	2	3
Carbide Putty	4	3	4	2	3
Ceramic/Pump Repair Putty	5	5	5	4	4
Brushable Ceramic	5	5	5	1	3
Ceramic Wear Compound Putty	4	3	3	2	2
Wear Guard Fine/High Load	4	3	3	2	3
Sprayable Ceramic	5	5	5	1	3
Combo Wear Fast Cure	4	3	3	2	3
Floor Grip	5	4	4	3	4
Floor Patch	5	4	4	3	3
Dev-Seal	5	3	3	2	3



Pot Life of 454g Minutes @ 24°C	Maximum Operating Temperature °C	Hardness Shore D ASTM D1706	Cure Shrinkage cm/cm ASTM D2566	Cured Density ASTM D792 g/cm <sup>3</sup>	Adhesive Tensile Shear A1 to A1 Etched MPa ASTM D1002	Compressive Strength of elastic unit ASTM D695 MPa	Tensile Strength ASTM D638 MPa	Flexural Strength ASTM D790 MPa	Coefficient of Thermal Expansion ASTM D696 (cm/cm/°C) x 10 <sup>-6</sup>	Thermal Conductivity ASTM C177 cal-cm/sec-cm <sup>2</sup> -°C x 10 <sup>-3</sup>	Dielectric Strength ASTM D149 Volts/mm
45	120	85	0.0006	2.33	19.3	57	22.2	38.6	86	1.37	1181
45	120	85	0.0006	2.11	19.3	70.3	33.8	51.6	68	1.39	1181
5	93	85	0.009	1.84	16.0	44.1	21.7	35.7	62	2.65	1181
60	120	85	0.0008	1.58	17.9	58.1	25.4	46.6	52	1.73	3937
75	120	85	0.0009	1.58	18.6	67.7	34.5	49.5	90	1.58	3937
60	120	85	0.001	1.72	17.2	58	30.2	56.5	52	1.73	3937
35	120	85	0.001	2.23	18.5	58.9	18.2	42.6	59	1.57	984
45	120	85	0.001	2.23	16.4	58	23	36	61	1.23	1181
20	175	87	0.001	2.36	13.8	129.6	27.5	53.1	40	1.95	2205
45@70°C	260	88	0.003	1.70	15.9	251.6	35.4	70.7	67	3.05	3937
45	93	82	0.002	1.57	18.5	38.8	19.0	34.4	104	1.41	5900
60	120	85	0.0005	1.75	15.2	67.6	29.6	44.8	58	1.44	15748
4	120	90	0.0093	1.69	13.8	87	21.7	53.1	57	2.04	14567
50	121	88	0.0008	1.8	17.5	67.8	27	45.5	50	1.73	15748
50	120	85	0.0009	1.75	9.3	56.3	18.2	37.8	95	1.65	7874
25	175	90	0.002	1.69	13.8	87.6	16.4	44.6	32	1.88	14567
40	176	87	0.0022	1.53	13.8	105	26	55.1	35	1.92	15039
45	93	90	0.0009	2.19	8.2	69.0	16.2	34.7	66	NA	NA
45	149	87	0.0014	2.2	16.4	75.8	29.6	49.6	61	1.81	13385
40	176	87	0.002	1.68	13.8	104.8	26.2	55	72	1.92	15039
7-12	149	87	0.0005	2.2	16.4	75.8	29.6	49.2	61	1.75	13385
35	120	85	NA	NA	NA	NA	NA	NA	NA	NA	NA
45	120	85	NA	1.8	8.3	55.2	NA	NA	NA	NA	NA
50	NA	ASTMD-2583 32 Barcol	0.005	1.74	11.8	61	80	NA	NA	NA	NA

Hydrochloric Acid 0-10%	Hydrochloric Acid 10-20%	Hydrochloric Acid 20%+	Sulphuric Acid 0-10%	Sulphuric Acid 10-20%	Sulphuric Acid 20%+	Acetic Acid Dilute	Glacial Acetic Acid	Sodium Hydroxide 0-10%	Sodium Hydroxide 10-20%	Sodium Hydroxide 20%+	Ammonia
3	2	2	3	2	1	2	1	4	4	3	4
3	2	2	3	2	1	2	1	4	4	3	4
3	3	2	3	2	1	2	1	4	4	3	4
3	2	2	3	2	1	2	1	1	1	2	4
3	2	2	3	2	1	2	1	2	2	2	4
3	2	2	3	2	1	2	1	2	2	2	4
3	2	2	3	2	1	2	1	4	4	3	4
3	2	2	3	2	1	2	1	4	4	3	4
4	3	2	5	4	3	5	1	5	5	4	5
4	3	2	4	3	3	3	1	5	5	4	5
3	2	2	3	3	3	1	1	4	4	3	4
3	2	2	4	2	1	2	1	4	4	3	4
3	2	2	3	2	1	2	1	3	2	1	4
3	2	2	3	2	1	2	1	4	4	3	4
3	2	2	3	2	1	2	1	4	4	3	4
4	3	2	5	4	4	5	1	5	5	4	5
5	4	3	5	4	4	5	1	5	5	4	5
3	2	2	3	2	3	2	1	4	4	3	4
3	3	2	3	2	2	3	1	4	4	3	4
5	4	3	5	4	3	5	1	5	5	4	5
3	3	2	3	2	2	3	1	4	4	3	4
4	3	2	4	4	3	4	1	5	5	4	5
4	3	2	4	4	3	4	1	5	5	4	5
3	2	2	4	3	2	3	1	3	3	3	4

# TECHNICAL DATA

## DEVCON FLEXANE URETHANE COMPOUNDS

Typical physical properties after 7 days cure at Room Temperature

	Viscosity with Hardener (cps) @ 24°C	Hardness Shore A ASTM D2240	Pot Life of 454 g @ 24°C in Min.	Demolding Time @ 24°C in Hours	Specific Volume cm <sup>3</sup> /kg	Cured Density ASTM 792g/cm <sup>3</sup>	DRY/WET Maximum Operating Temperature °C	Cure Shrinkage ASTM D2566 cm/cm	Elongation % ASTM D412	100% Modulus ASTM D412 MPa	Tensile Strength ASTM D412 MPa	Tear Resistance ASTM D624 MPa	Abrasion Resistance Weight loss **	Dielectric Strength ASTM D149 Volts/mm	Dry Film Coverage cm <sup>2</sup> /kg @ 5mm
Flexane 80 Liquid	10,000	87	30	10	957	1.08	82/49	0.0007	650	4.48	14.5	44	325	13800	1914
Flexane 80 Putty	Putty	87	20	10	848	1.18	82/49	0.0007	300	6.8	23.6	53	280	13800	1696
Flexane 94 Liquid	6,000	97	10	5	957	1.10	82/49	0.0004	500	7.58	27.6	73	330	13400	1914
Flexane Belt Repair Compound	Putty	75	10	NA	930	1.08	82/38	0.0005	275	4.20	6.9	32	254	12800	1860
Flexane Brushable***	40,000	86	45	NA	939	1.05	82/49	0.23*	600	4.21	24.2	70	95	13800	1277

\*Solvent loss. \*\*Taber Abrader H-18 wheel mg loss/1000 cycles 1000g wt. \*\*\*Putty 80% Solids. Brushable 68% solids.

## CHEMICAL RESISTANCE OF FLEXANE-IMMERSION

Sample Size: 12mm x 12mm Cure: 7 days at Room Temperature Immersion: 30 days

	Hydrochloric Acid 10%	Sulphuric Acid 10%	Water	Saturated Salt Solution	Ammonia	Sodium Hydroxide 10%	Gasoline	Kerosene	Mineral Spirits	ASTM #3 Oil	Methanol	Propylene Glycol	Chlorinated Solvent	MEK	Toluene
Flexane 80 (Liquid & Putty)	VG	VG	VG	VG	VG	VG	U	F	F	U	U	U	U	U	U
Flexane 94 Liquid	VG	VG	VG	VG	VG	VG	U	F	F	U	U	U	U	U	U
Flexane Belt Repair Compound	VG	VG	VG	VG	VG	VG	U	F	F	U	U	U	U	U	U
Flexane Brushable	F	F	VG	VG	VG	VG	U	U	F	U	U	U	U	U	U

Key: VG - Very Good; F - Fair; U - Unsatisfactory

## FLEXANE ACCELERATOR

- For speeding up the cure of Flexane at temperatures as low as 0°C.
- 1/2 teaspoon (2ml) of Accelerator will reduce the cure time of 450g of Flexane by 50%.

Do not use more than 2 teaspoons of Accelerator with each 450g of Flexane.

### PRIMERS:

#### FL-10 Primer

- Provides excellent adhesion to all metals.
- Use with all Flexanes.
- Use with FL-20 for applications on metal surfaces that are exposed to water immersion.
- Use with FL-20 for applications on metal requiring adhesion greater than 9kg/cm.

#### FL-20 Primer

- Provides excellent adhesion to rubber, wood, fibreglass and concrete.
- Use with all Flexanes.

### Primer Selection:

Primers are required for bonding Flexane to most substrates. Choose the recommended primer or combination from the above chart.

## PRIMER SELECTION

Substrate	Primer	
	FL 10	FL 20
Metal, Dry (Adhesion 4.5kg/cm)	•	
Metal, Dry (Adhesion > 9kg/cm)	•	•
Metal (Water Immersion)	•	•
Concrete		•
Rubber		•
Cured Flexane		•
Wood		•
Fibreglass		•

## CHEMICAL RESISTANCE DATA

### CHEMICAL RESISTANCE OF DEVCON CORE LINE PRODUCTS

#### INTRODUCTION

The data presented here indicates the performance of five families of DEVCON Core Line products when immersed in a wide variety of organic and inorganic liquids, solids and gases.

With a wide product range like Devcon's it is not possible to supply all the possible permutations and combinations of products and chemicals. The data contained here represents the compilation of many years of experience, but even so this data must be treated with every care since many factors influence "Chemical Resistance". There is NO substitute for testing actual products on actual substrates under the actual chemical environmental conditions expected - anything else can only provide guidelines.

Chemical	Metal Filled Epoxy Putties & Liquids	Plastic Steel 5-Minute Putty (SF)**	Titanium Putty	Ceramic Filled Epoxies	Flexanes & Urethane Casting Compounds
Acetone	2	2	3	3	1
Ammonium Hydroxide 10-20%	3	3	5	5	4
Ammonium Hydroxide 20%+	3	3	4	5	3
Apple Juice	4	4	5	5	4
Ashphalt Liquid	5	5	5	5	-
Aviation Fuel*	5	5	5	5	3
Benzene	4	4	5	5	2
Benzoic Acid	3	3	5	5	-
Brake Fluid (guide)	5	5	5	5	4
Chlorine (wet)	2	2	3	3	1
Carbon Tetrachloride (wet/dry)	3	3-4	4	4	1
Corn Oil	5	5	5	5	4
Di-Ethyl Ether	3-4	3	4	4	2
Diesel Oil	5	5	5	5	3
Ethylene Glycol	4	4	5	5	3
Ferric Chloride (wet)	5	5	5	5	4
Flourine	3	3	4	4	1
Formic Acid	1	1	3	3	-
Freon	4	4	5	5	1
Lime Water	5	5	5	5	5
LPG	5	5	5	5	-
Lubricating Oil	5	5	5	5	2
Methylene Chloride	2	2	2	2	1
Molybdenum Disulphide	5	5	5	5	5
Nitric Acid 10-20%	2	2	3	3	1
Nitric Acid 20%+	1	1	2	2	1
Petrol	5	5	5	5	4
Phenol (100%)	1	1	1	1	1
Phenol (10% solution)	4	4	5	5	2
Phosphoric Acid (dilute)	2-3	2-3	3-4	3-4	2-3
Potassium Hydroxide 20%	4	4	5	5	4
Potassium Hydroxide 20%+	3	3	4	4	3
Silicone Oil	5	5	5	5	5
Sodium Chloride	5	5	5	5	5
Sodium Hypochlorite	4	4	5	5	3
Tetrachloroethylene	3	3	4	4	1
Transformer Oil (guide)	5	5	5	5	2
Urea	5	5	5	5	5
Uric Acid	5	5	5	5	5
Water (Distilled, Mineral, Sea Brine, fresh etc)	5	5	5	5	5
Xylene	4	4	5	5	2

\*AVGAS see Aviation Fuel \*\*Data for SF refers to short term (ie:days) immersion only

All products are good in water, leaded petrol, mineral spirits, ASTM#3 oil and polypropylene glycol. Only ratings of 3-5 should be taken as any indication of suitability - testing is recommended for any 3 rating.

- 5** - Excellent may be suitable for long term immersion
- 4** - Good, suitable for medium term or intermittent contact
- 3** - Fair, suitable for intermittent contact only
- 2** - Poor, suitable for splash contact with immediate clean-up only
- 1** - Not recommended

Always specify  
**Devcon**<sup>®</sup>  
*Quality*

**A DIVISION OF  
ITW POLYMERS & FLUIDS PTY LTD**

ABN 49 002 237 103

**NEW SOUTH WALES**

100 Hassall Street Wetherill Park 2164  
Tel: (02) 9757 8800 Fax: (02) 9757 8868

**QUEENSLAND**

Unit 2, 525 Lytton Road Morningside 4170  
Tel: (07) 3899 8255 Fax: (07) 3899 9877

**WESTERN AUSTRALIA**

33 Irvine Drive Malaga 6090  
Tel: (08) 9249 2833 Fax: (08) 9249 2855

**NEW ZEALAND**

ITW polymers & Fluids NZ  
Auckland, New Zealand  
Tel: (09) 622 4322 Fax: (09) 622 4324

**WEBSITE**

[www.itw-devcon.com.au](http://www.itw-devcon.com.au)

**EMAIL**

[enquiries@itw-devcon.com.au](mailto:enquiries@itw-devcon.com.au)

**DISTRIBUTED BY**