

# **Wear & Abrasion Solutions**

Mining & Coal Preparation | Cement Processing | Coal-Fired Power Plants | Pulp & Paper | Steel Processing





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# **Product Technologies**

#### **Wearing Compounds**

Specially formulated wear-resistant epoxy coatings that protect dry materials handling and storage equipment from sliding abrasion, impact and wear. These products are trowelable, non-sag putties available in large particulate, high impact, and high temperature formulas. Tile Adhesives are high strength, room temperature curing, trowelable adhesives that bond ceramic tiles to metal.



#### **Belting and Rubber Repair Compounds**

Flexible urethane structural technologies for repairing worn or damaged SBR conveyor belts, rubber lined equipment such as pipes and tanks in mines, quarries, and coal-fired power plants. These products are in a non-sag putty for patching and repairing linings along with self-leveling thixotropic versions that create a smooth surface for repairing conveyor belts.



#### **Corrosion Repair Compounds**

Ceramic filled epoxy technology to make permanent repairs to pumps, shafts, pipes, and tanks where a corrosion-resistant polymer is needed to protect all metals against corrosion and erosion in slurry applications. These products apply easily with spray, a brush or in a creamy putty consistency that allows you to be back in service within 3-5 hours.



#### **Metal Repair Epoxies**

Metal-filled epoxy technology that allows for fast, economical, permanent repairs to power plant and mining equipment. The epoxies cure quickly; can be machined, tapped and corrosion resistant to harsh chemicals. These products are available in liquid formulas that can be used for mold patterns, holding fixtures and forming dies.







# Wear-resistant, Abrasion-resistant Coatings

Specially formulated wear-resistant epoxy coatings that protect dry materials handling and storage equipment from abrasion, corrosion and wear. The DFense Blok™ product line is truly an advanced epoxy technology with quicker functional cure times and better abrasion resistance.

#### Devcon® DFense Blok™

An easy-to-mix bead-filled epoxy compound formulated to significantly outlast traditional wear and abrasion products while providing superior protection.

- 4X better abrasion resistance than competition
- 7X better drop impact strength than ceramic tile

ltem#	Size
11330	30 lb

### Devcon<sup>®</sup> DFense Blok<sup>™</sup> Surface Wetting Agent

A thixotropic epoxy gel system that improves the ease of application and cured adhesion properties of DFense Blok™.

- Zero wait time before applying
   DEense Blok™
- Orange color for easy visual inspection

Item#	Size
11340	1 lb

### Devcon<sup>®</sup> DFense Blok<sup>™</sup> Fast Cure (FC)

A bead-filled epoxy compound that allows equipment to be returned to service in 2 hours.

- Non-sagging, good adhesion
- Withstands operating temperature as high as 300°F

Item #	Size:
11350	9 lb

#### Devcon<sup>®</sup> DFense Blok™ Power Mixer

Recommended for most effective way to thoroughly mix DFense Blok™ Wearing Compound. Can be used with any of our 5 gallon pail wearing compounds.

- Durable steel paddle with three blades;2X faster than drill-style mixers
- Plugs into standard 120V outlet.

Item #	Size:
11301	5 Gallon

#### Devcon® DFense Blok™ Quick Patch

The only ceramic bead-filled wear and abrasion resistant epoxy for emergency

- Eliminates down-time with exceptionally fast cure
- Repairs holes, leaks and cracks

Item #	Size:
11320	1 lb



Watch our Impact Test!



### **Technical Information**

Physical Properties	Devcon® DFense Blok™	Devcon <sup>®</sup> DFense Blok™ Surface Wetting Agent	Devcon <sup>®</sup> DFense Blok™ Fast Cure (FC)	Devcon® DFense Blok™ Quick Patch
Color	Grey	Orange	Grey	Grey
Mix ratio by weight / volume resin:hardener	2:1 / 100:45	2:1/100:44	2:1/2:1	1:1/1:1
Mixed viscosity cP	Putty	Thixotropic Gel	Putty	Putty
Functional cure hours	4-5	4-5	2-3	30 minutes
Pot life minutes @ 75°F	25	12-15	15	4
Specific volume inches <sup>3</sup> /pound	12.6	24.7	13.5	14.89
Coverage per pound inches <sup>2</sup> @ 1/4" thickness	47	1860 @ 12mils	53	60
Cured hardness (ASTM D2240) Shore D	77	71	80	84
Cured shrinkage (ASTM D2566) inch/inch	0.0005	N/A	0.0008	0.0010
Adhesive tensile shear (ASTM D1002) psi	2,616	2,616	2,764	2,495
Compressive strength (ASTM D695) psi	7,145	5,032	7,178	6,166
Flexural strength (ASTM D790) psi	7,876	6,700	7,488	4,880
Coefficient of thermal expansion (ASTM D696)[(in)/(in x °F)] x 10-6	29	N/A	33	31
Dielectric constant (ASTM D150)	49.0	N/A	45	51
Maximum continuous dry service temperature°F	300	300	300	200
Maximum continuous wet service temperature °F	140	N/A	140	N/A

Chemical Resistance	Devcon® DFense Blok™	Devcon <sup>®</sup> DFense Blok™ Surface Wetting Agent	Devcon <sup>®</sup> DFense Blok™ Fast Cure (FC)	Devcon <sup>®</sup> DFense Blok™ Quick Patch
ACIDS Acetic 10% Hydrochloric 10% Sulfuric 10%	⊗ • •	∅ 0 0	♦ •	⊗ • •
ALCOHOLS Methanol Isopropanol	0	<b>\oint </b>	⊗ ⊗	0
KETONES Acetone Methyl ethyl ketone	0	0	⊗ ⊗	0
ALKALIS Ammonium hydroxide 20% Sodium hydroxide 10%	<b>O</b>	<b>O</b>	<b>O</b>	•
HYDROCARBONS Gasoline (unleaded) Mineral spirits	<b>○</b>	0	<b>O</b>	•
CHLORINATED HYDROCARBONS 1-1-1 Trichloroethane	•	•	•	•
SALTS Sodium chloride Trisodium phosphate	<b>O</b>	•	•	•

Key: Excellent Very Good Fair Poor





# Wear-resistant, Abrasion-resistant Coatings

Specially formulated wear-resistant epoxy coatings that protect dry materials handling and storage equipment from abrasion, corrosion and wear. These products are trowelable, non-sag putties available in large particulate, high impact, and high temperature formulas.

#### **Devcon® Wear Guard™ Fine Load**

High-density, micro-alumina ceramic beadfilled epoxy system for protecting equipment that handles particulate smaller than 1/8".

- Withstands operating temperatures
- as high as 300°F
- Outstanding resistance to a wide range of chemicals

Item #	Size
11470	30 lb

#### **Devcon® Wear Guard™ High Load**

Alumina ceramic bead-filled epoxy system with outstanding abrasion resistance for severe service conditions with particulate greater than 1/8".

- Trowels onto overhead or vertical surfaces without sagging
- Ideal for repairing scrubbers, ash handling systems, pipe elbows, screens, and chutes

Item #	Size
11490	30 II

#### **Devcon® Tile Adhesive**

High-strength, trowelable adhesive that cures at room temperature.

- Bonds ceramic tile to vertical, curved, and overhead surfaces and repairs loose ceramic tiles
- Excellent chemical resistance to acids and alkalis

ltem#	Size:
11495	20 lb

#### **Devcon® Wear Guard™ Ultra**

Alumina ceramic bead-filled epoxy system with outstanding abrasion resistance for severe service conditions.

- Outstanding Wear Resistance
- Extends Equipment Operating Cycles

Item #	Size
11475	30 lb

#### Devcon<sup>®</sup> Wear Guard<sup>™</sup> High Impact

High density micro alumina ceramic beadfilled epoxy system with a flexible additive for superior impact and abrasion resistance.

- Non sagging putty in a creamy consistency
- High compression and impact strength

ltem#	Size:
11460	30 lb

#### Devcon® Combo Wear FC

High-tech, three-component (2 bead sizes plus silicon carbide) compound for repairing process equipment quickly and returning it to service in as little as 1-1/2 hours.

- Excellent adhesion to metal, ceramic and concrete surfaces
- Ideal for cracks in large coal fuel lines

ltem #	Size:
11450	9 lb

#### Devcon<sup>®</sup> Wear Guard<sup>™</sup> High Temp

High-density, ceramic bead-filled epoxy system for maximum wear and abrasion resistance in high temperature applications.

- Heat-cured, trowelable system that gives up to 30% improvement over conventional wear compounds
- Withstands continuous service temperatures to 450°F

ltem#	Size:
11483	24 lb



Physical Properties	Devcon <sup>®</sup> Wear Guard™ Fine Load	Devcon <sup>®</sup> Wear Guard™ High Load	Devcon <sup>®</sup> Wear Guard™ High Temp	Devcon <sup>®</sup> Wear Guard™ High Impact	Devcon® Wear Guard™ Ultra	Devcon® Combo Wear FC (Fast Cure)	Devcon® Tile Adhesive
Color	Grey	Grey	Grey	Dark Grey	Grey	Grey	White
Mix ratio by weight /volume resin:hardener	2:1 / 2:1	2:1 / 2:1	13.7:1 / 6:1	2.5:1 / 2.5:1	2.15:1:5.65 <sup>2</sup>	2:1 / 2:1	1.1:1 / 1:1
Mixed viscosity cP	Putty	Putty	Putty	Putty	Putty	Putty	Putty
Functional cure hours	6-8	6-8	Heat Cured	6-8	16	2-3	12
Pot life minutes @ 75°F	30	30	120	30	20	7	240
Specific volume inches¹/pound	12.4	12.9	14.3	12.4	11.4	12.4	19.2
Coverage per pound inches <sup>2</sup> @ 1/4" thickness	50	50	60	50	46	50	76.8
Cured hardness (ASTM D2240) Shore D	87	87	87	85	87	87	81
Cured shrinkage (ASTM D2566) inch/inch	0.0006	0.0006	0.0010	0.0006	0.0004	0.0008	0.0010
Adhesive tensile shear (ASTM D1002) psi	1,375	1,474	2,300	2,567	1,425	1,450	2,890
Compressive strength (ASTM D695) psi	11,000	11,000	13,200	7,250	13,910	11,000	9,620
Flexural strength (ASTM D790) psi	7,190	7,140	8,220	6,144	7,220	7,140	5,480
Coefficient of thermal expansion (ASTM D696) [(in)/(in x 'F)] x 10 <sup>-6</sup>	34	32	27	34	26	34	14
Dielectric constant (ASTM D150)	46.0	41.0	38.0	46.0	40.0	41.0	46.0
Maximum continuous dry service temperature °F	300	300	450	300	300	300	200
Maximum continuous wet service temperature °F	140	140	150	140	140	140	N/A

NOTES: 2 Three-part system, beads separate

Chemical Resistance	Devcon® Wear Guard™ Fine Load	Devcon® Wear Guard™ High Load	Devcon® Wear Guard™ High Temp	Devcon® Wear Guard™ High Impact	Devcon® Wear Guard™ Ultra	Devcon® Combo Wear FC (Fast Cure)	Devcon® Tile Adhesive
ACIDS Acetic 10% Hydrochloric 10% Sulfuric 10%	∅ 0 0	♦ • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • <p< td=""><td><b>⊗</b> •</td><td>⊗ • •</td><td>♦</td><td><b>⊗</b> <b>⊙</b></td><td>⊗ • •</td></p<>	<b>⊗</b> •	⊗ • •	♦	<b>⊗</b> <b>⊙</b>	⊗ • •
ALCOHOLS Methanol Isopropanol	<b>O</b>	<b>○ ○</b>	0	<b>⊘</b>	<b>O</b>	<b>⊘</b> O	<b>⊗</b> O
KETONES Acetone Methyl ethyl ketone	<b>⊘</b>		00	<b>⊗</b>	<b>O</b>	<b>○</b>	$igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes_{igotimes$
ALKALIS Ammonium hydroxide 20% Sodium hydroxide 10%	•	•	•	•	•	•	•
HYDROCARBONS Gasoline (unleaded) Mineral spirits	•	•	•	•	•	0	<ul><li>○</li><li>●</li></ul>
CHLORINATED HYDROCARBONS 1-1-1 Trichloroethane	•	•	•	•	•	•	•
SALTS Sodium chloride Trisodium phosphate	0	•	•	<b>O</b>	•	<b>O</b>	<b>O</b>

Key: ■ Excellent ■ Very Good ○ Fair ○ Poor





# **Elevated Temperature, Wear-resistant Coatings**

Innovative wear-resistant epoxy coating that is designed to protect equipment against high temperature erosion, corrosion and abrasion. Long-lasting protection in both wet and dry environments upto 300°F/148°C. Room temperature cure eliminates the need for oven bake cure. Trowelable, non-sag putty. Smooth with water.

#### Devcon<sup>®</sup> Wear Guard<sup>™</sup> 300RTC

Alumina ceramic bead-filled epoxy system with outstanding wear resistance for high temperature environments.

- Withstands elevated service temperatures, wet and dry conditions, up to 300°F / 148°C
- Room temperature cure eliminates need for post-bake cure

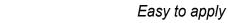
Easy to mix

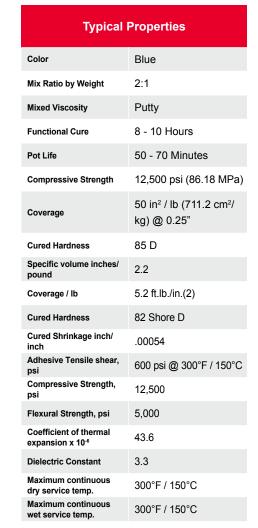
- Sag-free application
- · Excellent chemical resistance
- Smooth with water
- Easy to mix and apply
- Low exothermic reaction

Item #	Size:
11430	30 lb











Smooth with water

# **Belting & Rubber Repair**

Flexible urethane technologies for repairing worn or damaged SBR conveyor belts, rubber lined equipment such as pipes and tanks in mines, quarries, and coal-fired power plants. These products are in a non-sag putty for patching and repairing linings along with self-leveling thixitropic versions that create a smooth surface for repairing conveyor belts.

#### Devcon® R-Flex®

A self-leveling urethane compound for repairing holes, tears, gouges, and protecting clips, on conveyor belts.

- Functional cure in 90 minutes
- High adhesion with surface pull of the SBR rubber
- Kit includes fluorescent surface conditioner for dark environments

Item #	Size:
15550	4 lb
15656	1.5 lb

#### Devcon® Flexane® 80 Putty

Trowelable urethane for repairing and lining process equipment exposed to wear, abrasion, vibration or expansion and contraction.

- Service temperatures to 180°F in dry environments and 120°F in wet environments
- Bonds to metal, concrete, rubber, wood, and fiberglass surfaces

Item#	Size
15820	1 lb
15850	4 lh

#### Devcon® Flexane® Brushable

High-performance brushable urethane for protection against abrasion and impact.

- Excellent for repairing/coating rubber-lined pumps, tanks and valves
- Applies in thicknesses of 50 mils in one application

		900
Item#	Size:	AI
15350	1 lb	THE MERCHED P

Before: R-Flex® Repair



After: R-Flex® Repair Belt Running Strong





Before: R-Flex® Clip Repair



After: R-Flex® Clip Repair

### Devcon® Flexane® High Performance Putty

Trowelable lining for maximum protection against abrasion, gouging and impact.

- Cures to a tough (tear strength 400 pli), resilient rubber compound (Hardness 78 Shore A)
- Bonds to metal, rubber, wood, fiberglass, and concrete

em#	Size:
5330	1 lb





### **Technical Information**

Physical Properties	Devcon® R-Flex®	Devcon <sup>®</sup> Flexane <sup>®</sup> 80 Putty	Devcon® Flexane® Brushable	Devcon® Flexane® High Performance Putty
Color	Black	Black	Black	Black
Mix ratio by weight resin:hardener	88:12	72:28	80:20	94:6
Mixed viscosity cP	Putty	Putty	40,000	Putty
Pot life minutes @ 75°F	4	20	45	10
Specific volume inches³/pound	27.4	23.5	26.0	23.5
Coverage per pound inches <sup>2</sup> @ 1/4" thickness	440 (4lb) / 110 (1.5lb)	94	104	94
Functional cure hours	1 1/2	12	18	16
Demolding time hours	N/A	N/A	N/A	N/A
Cured hardness (ASTM D2240) Shore A	92	87	86	78
Cured shrinkage (ASTM D2566) inch/inch	NA	0.0014	0.232	0.122
Tensile strength (ASTM D412) psi	1,462	1,700	3,500	4,500
Tear resistance (ASTM D624) pli	270	300	400	400
Abrasion resistance weight loss <sup>1</sup>	270	280	90	140
Maximum elongation (ASTM D412) %	421	300	600	600
Dielectric strength (ASTM D149) volts/mil	350	350	340	350
Maximum continuous wet service temperature °F	120	120	120	120
Maximum continuous dry service temperature °F	180	180	180	180

NOTES: 1 Taber H-18 wheel (mg/1,000 revolutions @ 1,000 gram load) 2 Due to solvent loss

Chemical Resistance	Devcon <sup>®</sup> R-Flex <sup>®</sup>	Devcon® Flexane® 80 Putty	Devcon <sup>®</sup> Flexane <sup>®</sup> Brushable	Devcon® Flexane® High Performance Putty
ACIDS Acetic 10% Hydrochloric 10% Sulfuric 10% Sulfuric 50% Phosphoric 10%	• • • • • • • • • • • • • • • • • • •	© • • •	0 0 0 0	0000
ALCOHOLS Methanol Isopropanol	0	0	0	0
KETONES Acetone Methyl ethyl ketone	<b>O</b>	<b>O</b>	<b>⊗</b>	0
ALKALIS Ammonium hydroxide 20% Sodium hydroxide 10%	<b>O</b>	0	<b>O</b>	•
HYDROCARBONS Gasoline (unleaded) Mineral spirits	0	0	0	0
SALTS Sodium chloride Trisodium phosphate Aluminum sulfate 10% Sodium carbonate 10%	• • • • • • • • • • • • • • • • • • •	• • •	<b>O O O</b>	• • • • • • • • • • • • • • • • • • •

Key: ■ Excellent ■ Very Good ○ Fair ○ Poor

# **Belting & Rubber Repair**

Flexible urethane technologies for repairing worn or damaged SBR conveyor belts, rubber lined equipment such as pipes and tanks in mines, quarries, and coal-fired power plants. These products are in a non-sag putty for patching and repairing linings along with self-leveling thixotropic versions that create a smooth surface for repairing conveyor belts.

#### Devcon® Flexane® 80 Liquid

Medium-viscosity (10,000 cP) urethane fills voids completely and faithfully reproduces mold detail.

- Cures to semi-rigid rubber (Shore A 87)
- Cures at room temperature to a semirigid rubber material

Item#	Size
15800	1 lb
15810	10 lb

#### Devcon® Flexane® 94 Liquid

Low-viscosity (6,000 cP) urethane fills voids completely and faithfully reproduces mold detail.

- Similar to Flexane® 80 Liquid, but cures to (Shore A 97)
- Requires only a five hour demolding

Item #	Size
15250	1 lb
15260	10 lb

#### Devcon® Flexane® Primer

Required for maximum adhesion of Flexane®

- FL-10 Primer for all metals.
- FL-20 Primer for rubber, wood, fiberglass and concrete.

tem#	Size:
15980	4 oz (FL-10)
15985	4 oz (FL-20)

#### Devcon<sup>®</sup> Flex-Add™

Used with Flexane® 80 Liquid to produce a more flexible urethane.

- Creates a lower durometer castable
- Can match existing hardness of rubber

Item#	Size
15040	8 07

#### **Devcon® Liquid Release Agent**

Silicone release agent prevents Devcon's epoxy and urethane compounds from sticking to patterns or mold surfaces.

- Produces a high gloss finish
- Facilitates the accurate duplication of intricate details

Item #	Size:
19600	1 pt



#### Devcon® 400ml **Dispensing System**

Manual dispensing gun and custom design mixing nozzle for 4:1 400 ml systems.

 Used with Flexane® Fast Cure Putty #15049 & Flexane® Fast Cure Liquid

ltem#	Size:
15043	400 ml gun
15047	Nozzle (Ø.394" 4:1 ratio)

#### Devcon® Flexane® FC Liquid

A convenient, time-saving method of filling expansion joints and repairing rubber.

- 8-minute working time
- No-mess dispensing with fast, easy, 400ml reusable cartridges
- Dispenser: #15043 (manual) Nozzle #15047

Item#	Size:
15050	400 ml cartridge

#### Devcon® Flexane® Fast Cure Putty

Black Flexane® Fast Cure thickens to a putty in seconds providing superior flexibility, elongation and adhesion to rubber.

- Light service duty in 3 hours
- Thixotropic, creamy formula which thickens in time
- Dispenser #15043 (manual) Nozzle #15047

tem #	Size:
5049	400 ml cartridge





### **Technical Information**

Physical Properties	Devcon <sup>®</sup> Flexane <sup>®</sup> 80 Liquid	Devcon <sup>®</sup> Flexane <sup>®</sup> 94 Liquid	Devcon <sup>®</sup> Flexane <sup>®</sup> Fast Cure Putty	Devcon <sup>®</sup> Flexane <sup>®</sup> Fast Cure Liquid
Color	Black	Black	Black	Grey
Mix ratio by weight resin:hardener	77:23	69:31	80:20	80:20
Mixed viscosity cP	10,000	6,000	Putty	5,800
Pot life minutes @ 75°F	30	10	8	8
Specific volume inches³/pound	26.5	26.5	23.5	26.5
Coverage per pound inches <sup>2</sup> @ 1/4" thickness	106	106	94	106
Functional cure hours	16	16	3	2
Demolding time hours	10	5	N/A	N/A
Cured hardness (ASTM D2240) Shore A	87	97	88	94
Cured shrinkage (ASTM D2566) inch/inch	0.0018	0.0014	0.0014	0.0018
Tensile strength (ASTM D412) psi	2,100	2,800	2,400	3,300
Tear resistance (ASTM D624) pli	350	415	275	430
Abrasion resistance weight loss¹	285	330	220	330
Maximum elongation (ASTM D412) %	650	500	500	450
Dielectric strength (ASTM D149) volts/mil	350	350	350	350
Maximum continuous dry service temperature °F	180	180	120	120
Maximum continuous wet service temperature °F	120	120	180	180

NOTES: 1 Taber H-18 wheel (mg/1,000 revolutions @ 1,000 gram load)

Chemical Resistance	Devcon® Flexane® 80 Liquid	Devcon® Flexane® 94 Liquid	Devcon® Flexane® Fast Cure Putty	Devcon® Flexane® Fast Cure Liquid
ACIDS Acetic 10% Hydrochloric 10% Sulfuric 10% Sulfuric 50% Phosphoric 10%				
ALCOHOLS Methanol sopropanol	<b>⊗</b> <b>⊗</b>	<b>0</b>	0	<b>⊗</b>
KETONES Acetone Methyl ethyl ketone	<b>⊗ ⊗</b>	© ©	<b>⊗</b> <b>⊗</b>	<b>⊗ ⊗</b>
ALKALIS Ammonium hydroxide 20% Sodium hydroxide 10%	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>
HYDROCARBONS Gasoline (unleaded) Jineral spirits	<b>⊗</b>	<b>⊗</b>	<b>⊘</b>	<b>⊘</b>
SALTS Sodium chloride Frisodium phosphate Aluminum sulfate 10% Sodium carbonate 10%	<b>O O O O</b>		0 0 0	<b>O O O O</b>

# **Corrosion Repair Compounds**

Ceramic filled epoxy technology used to make permanent repairs to pumps, shafts, pipes, and tanks where a corrosion-resistant polymer is needed to protect all metals against corrosion and erosion in slurry applications. These products apply easily with spray, a brush or trowel.

#### **Devcon® Titanium Putty**

High-performance, nonrusting titaniumreinforced epoxy putty for making repairs that can be precision machined.

- Withstands heavy loads in harsh chemical evironments
- High compressive strength

tem#	Size:	Wes
0760	1 lb	ABS
0770	2 lb	THE MERCHD RESOLUTION

#### **Devcon® Ceramic Repair Putty**

Trowelable, alumina-filled epoxy compound for rebuilding, smoothing and protecting processing equipment exposed to corrosion, erosion, cavitation, chemicals and acids.

- Temperature range up to 350°F
- Excellent for filling voids and rebuilding metal castingsone application

Item #	Size
11700	3 lb

#### Devcon® Ceramic Repair Compound

Trowelable, alumina-filled epoxy compound with a 45-minute pot life and larger kit size for bigger jobs of rebuilding, smoothing and protecting processing equipment

- Temperature range up to 350°F
- Excellent for filling voids and rebuilding metal castings

Item #	Size
11730	32 lk

#### Devcon® Brushable Ceramic

When applied in a 15-20 mil coating, this low-viscosity, alumina-filled, brushable epoxy compound produces a smooth, protective barrier against wear, abrasion, corrosion, and erosion.

- Temperature range up to 350°F
- Brushable Ceramic white is NSF 61 Certified.

ltem#	Size:	
11760	2 lb (red)	
11765	2 lb (blue)	
11767	12 lb (blue)	
11770	2 lb (white)	



### Devcon® EZ-Spray Ceramic

Sprayable, solvent-free, high performance ceramic-filled epoxy for sealing, protecting and repairing surfaces subject to erosion, corrosion and wear. Significantly reduces equipment repair time with easy-to-use delivery system.

- Temperature resistance to 175°C
- Excellent chemical resistance.

Size:
1,000 ml (Blue)
Straight Spray Nozzle
Pneumatic Spray Dispenser









Devcon®Titanium Putty	Devcon <sup>®</sup> Brushable Ceramic Red, Blue	Devcon® Brushable Ceramic White	Devcon <sup>®</sup> Ceramic Repair Putty	Devcon <sup>®</sup> Ceramic Repair Compound	Devcon® EZ-Spray Ceramic
Grey	Red, Blue	White	Dark Blue	Dark Blue	Blue
4.3:1 / 3:1	5.6:1 / 3.4:1	8:5:1 / 5:6:1	7:1 / 4.3:1	4.7:1 / 3.3/1	5.0:1 / 3:1
Putty	32,000	40,000	Putty	Putty	30,000
16	16	16	16	16	16
21	40	21	25	45	40
11.7	16.9	16.5	16.4	17.9	17.1
47	7.8 <sup>1</sup>	7.6 <sup>1</sup>	66	72	7.9 <sup>1</sup>
87	85	84	86	86	85
0.0010	0.0020	0.0020	0.0022	0.0024	0.0020
2,000	2,000	2,000	2,000	2,231	2,000
15,200	13,700	13,200	12,700	10,240	13,700
7,700	8,000	8,000	6,475	5,870	8,000
9.5	8.0	8.0	8.1	8.1	8.0
22	25.6	27.5	23.8	24.2	25.6
1.95	19	19	1.88	1.72	19
44.8	38.7	38.7	41.0	41.0	38.7
56	382	382	370	350	382
350	350	350	350	350	350
150	150	150	150	150	150
	Putty  Grey  4.3:1/3:1  Putty  16  21  11.7  47  87  0.0010  2,000  15,200  7,700  9.5  22  1.95  44.8  56  350	Develope Titalium Putty         Brushable Ceramic Red, Blue           Grey         Red, Blue           4.3:1/3:1         5.6:1/3.4:1           Putty         32,000           16         16           21         40           11.7         16.9           47         7.8¹           87         85           0.0010         0.0020           2,000         2,000           15,200         13,700           7,700         8,000           9.5         8.0           22         25.6           1.95         19           44.8         38.7           56         382           350         350	Devicon Titanium Putty         Brushable Ceramic Red, Blue         Brushable Ceramic White           Grey         Red, Blue         White           4.3:1/3:1         5.6:1/3.4:1         8:5:1/5:6:1           Putty         32,000         40,000           16         16         16           21         40         21           11.7         16.9         16.5           47         7.8¹         7.6¹           87         85         84           0.0010         0.0020         0.0020           2,000         2,000         2,000           15,200         13,700         13,200           7,700         8,000         8,000           9.5         8.0         8.0           22         25.6         27.5           1.95         19         19           44.8         38.7         38.7           56         382         382           350         350         350	Develor-Intantium Putty         Brushable Ceramic Red, Blue         Brushable Ceramic White         Ceramic Repair Putty           Grey         Red, Blue         White         Dark Blue           4.3:1/3:1         5.6:1/3.4:1         8:5:1/5:6:1         7:1/4.3:1           Putty         32,000         40,000         Putty           16         16         16         16           21         40         21         25           11.7         16.9         16.5         16.4           47         7.8¹         7.6¹         66           87         85         84         86           0.0010         0.0020         0.0020         0.0022           2,000         2,000         2,000         2,000           15,200         13,700         13,200         12,700           7,700         8,000         8,000         6,475           9.5         8.0         8.0         8.1           22         25.6         27.5         23.8           1,95         19         19         1.88           44.8         38.7         38.7         41.0           56         382         382         370 <t< th=""><th>Oeveral Hanilum Putty         Brushable Ceramic Red, Blue         Brushable Ceramic White         Ceramic Repair Dark Blue         Ceramic Repair Compound           Grey         Red, Blue         White         Dark Blue         Dark Blue           4.3:1/3:1         5.6:1/3.4:1         8.5:1/5:6:1         7:1/4.3:1         4.7:1/3.3/1           Putty         32,000         40,000         Putty         Putty           16         16         16         16         16           21         40         21         25         45           11.7         16.9         16.5         16.4         17.9           47         7.8¹         7.6¹         66         72           87         85         84         86         86           0.0010         0.0020         0.0020         0.0022         0.0024           2,000         2,000         2,000         2,200         2,231           15,200         13,700         13,200         12,700         10,240           7,700         8,000         8,000         6,475         5,870           9.5         8.0         8.0         8.1         8.1           22         25.6         27.5         23.8</th></t<>	Oeveral Hanilum Putty         Brushable Ceramic Red, Blue         Brushable Ceramic White         Ceramic Repair Dark Blue         Ceramic Repair Compound           Grey         Red, Blue         White         Dark Blue         Dark Blue           4.3:1/3:1         5.6:1/3.4:1         8.5:1/5:6:1         7:1/4.3:1         4.7:1/3.3/1           Putty         32,000         40,000         Putty         Putty           16         16         16         16         16           21         40         21         25         45           11.7         16.9         16.5         16.4         17.9           47         7.8¹         7.6¹         66         72           87         85         84         86         86           0.0010         0.0020         0.0020         0.0022         0.0024           2,000         2,000         2,000         2,200         2,231           15,200         13,700         13,200         12,700         10,240           7,700         8,000         8,000         6,475         5,870           9.5         8.0         8.0         8.1         8.1           22         25.6         27.5         23.8

NOTES: 1 Coverage (feet2 @ 15mils)

NOTES: 1 Coverage (feet2 @ 15mils)						
Chemical Resistance	Devcon® Titanium Putty	Devcon® Brushable Ceramic Red, Blue	Devcon® Brushable Ceramic White	Devcon <sup>®</sup> Ceramic Repair Putty	Devcon <sup>®</sup> Ceramic Repair Compound	Devcon® EZ-Spray Ceramic
ACIDS Acetic 10% Hydrochloric 10% Sulfuric 10%	<ul><li>♦</li><li>•</li><li>•</li></ul>	⊗ • •	⊗ • •	⊗ • •	♦ •	⊗ • •
ALCOHOLS Methanol Isopropanol	•	•	•	•	•	•
KETONES Acetone Methyl ethyl ketone	0	<b>0</b>	<b>O O</b>	<b>⊗</b> <b>⊗</b>	0 0	0
ALKALIS Ammonium hydroxide 20% Sodium hydroxide 10%	•	•	•	•	•	•
HYDROCARBONS Gasoline (unleaded) Mineral spirits	•	<b>O</b>	<b>0</b>	•	•	•
<b>CHLORINATED</b> HYDROCARBONS 1-1-1 Trichloroethane	•	•	•	•	•	•
SALTS Sodium chloride Trisodium phosphate	•	•	•	•	•	•

Key: Excellent Very Good Fair Poor

# **Metal Repair Epoxies**

Metal-filled epoxy technology that allow for fast economical permanent repairs to power plant and mining equipment. They can be machined, tapped and drilled, and corrosion resistant to harsh chemicals. These products are available in pourable versions that can be used to provide accurate detail reproductions for short run prototype mold patterns, holding fixtures and forming dies.

#### Devcon® Plastic Steel® Putty (A)

The original metal-filled epoxy putty, it is ideal for repairing areas where welding or brazing would be impractical.

- Can be drilled, tapped and machined.
- Conforms to the requirements of MIL-PRF-24176C, Type I

Item #	Size:
10110	1 lb
10120	4 lb



### Devcon<sup>®</sup> Stainless Steel Putty (ST)

Stainless steel-filled epoxy putty for patching, repairing and rebuilding stainless steel surfaces as well as food processing equipment.

- Bonds to ferrous and non-ferrous metals
- NSF 61 Certified

em#	Size:	Al
270	1 lb	711

#### Devcon® Plastic Steel® Liquid (B)

A pourable steel-filled epoxy that provides accurate detail reproduction in making holding fixtures, light gauge forming dies and molds.

- Can be drilled, tapped and machined
- Qualifies under Federal Specification MMM-A-1754, Adhesive/Sealing

<u>em #</u>	Size:	
0210	1 lb	
0220	4 lb	



## Devcon® Plastic Steel® 5 Minute® Putty (SF)

Fast-curing, steel-filled epoxy for emergency repairs at temperatures as low as 40°F.

- Repaired parts can be returned to service within one hour
- Mixes, applies, and cures at temperatures as low as 40°F

Item #	Size:
10240	1 lb



#### **Devcon® Aluminum Putty (F)**

Aluminum-filled epoxy putty for dependable nonrusting repairs to aluminum castings, machinery and equipment.

- Can be machined drilled or tapped using conventional metalworking tools
- Widely used in HVAC applications, it conforms to requirements of MIL-PRF-24176C, Type II

Item#	Size:	
10610	1 lb	- A
10620	3 lb	70 (200

### Devcon® Aluminum Liquid (F-2)

Aluminum-filled pourable epoxy for making molds, patterns and holding fixtures.

- It can be drilled, tapped and machined
- Hardens in just over 1 hour; cures in 16 hours
- Qualifies under Federal Specification MMM-A-1754, Adhesive/Sealing

tem#	Size	
0710	1 lb	ABS
0720	3 lb	100 007







Physical Properties	Devcon Plastic Steel Putty (A)	Devcon Plastic Steel Liquid (B)	Devcon Plastic Steel 5 Minute Putty (SF)	Devcon Stainless Steel Putty (ST)	Devcon <sup>e</sup> Aluminum Putty (F)	Devcon <sup>e</sup> Aluminum Liquid (F-2)
Color	Dark Grey	Dark Grey	Dark Grey	Grey	Aluminum	Aluminum
Mix ratio by weight / volume resin:hardener	9:1 / 2.5:1	9:1 / 3:1	1.7:1 / 1:1	11:1 / 3.75:1	9:1 / 4:1	9:1 / 5:1
Mixed viscosity cP	Putty	15 / 25,000	Putty	Putty	Putty	15 / 25,000
Functional cure hours	16	16	1	16	16	16
Pot life minutes @ 75°F	45	45	5	58	60	75
Specific volume inches 3/pound	11.9	13.1	12.2	12.4	17.5	17.5
Coverage per pound inches <sup>2</sup> @ 1/4" thickness	48	52	49	50	70	70
Cured hardness (ASTM D2240) Shore D	85	85	85	85	85	85
Cured shrinkage (ASTM D2566) inch/inch	0.0006	0.0006	0.0006	0.0010	0.0008	0.0009
Adhesive tensile shear (ASTM D1002) psi	2,800	2,800	2,026	2,385	2,600	2,700
Compressive strength (ASTM D695) psi	8,260	10,200	10,400	8,400	8,420	9,820
Flexural strength (ASTM D790) psi	5,600	7,480	7,680	5,280	6,760	7,180
Modulus of elasticity (ASTM D638) psi x 10 <sup>s</sup>	8.5	8.5	7.5	8.0	8.0	7.5
Coefficient of thermal expansion (ASTM D696) [(in)/(in x `F)] x 10 °	48	38	34	34	29	50
Thermal conductivity (ASTM C177) [(cal x cm)/(sec x cm² x °C)] x 10 <sup>-3</sup>	1.37	1.39	2.65	1.23	1.73	1.58
Dielectric constant (ASTM D150 )	67.5	67.5	35.0	75.0	21.4	8.6
Dielectric strength (ASTM D149 ) volts/mil	30	30	30	30	100	100
Maximum continuous dry service temperature °F	250	250	200	250	250	250
Maximum continuous wet service temperature °F	120	120	N/A	120	120	120
Chemical Resistance	Devcon Plastic Steel Putty (A)	Devcon Plastic Steel Liquid (B)	Devcon°Plastic Steel° 5 Minute°	Devcon Stainless Steel Putty (ST)	Devcon <sup>®</sup> Aluminum Putty (F)	Devcon <sup>®</sup> Aluminum Liquid (F-2)
ACIDS	()	0	Putty (SF)	0	0	0

Chemical Resistance	Devcon Plastic Steel Putty (A)	Devcon <sup>®</sup> Plastic Steel <sup>®</sup> Liquid (B)	Devcon Plastic Steel 5 Minute Putty (SF)	Devcon Stainless Steel Putty (ST)	Devcon <sup>°</sup> Aluminum Putty (F)	Devcon <sup>°</sup> Aluminum Liquid (F-2)
ACIDS Acetic 10% Hydrochloric 10% Sulfuric 10%	○ •	○	000	○ •	○ •	○ •
ALCOHOLS Methanol Isopropanol	∅	<b>⊗</b>	<b>⊗</b>	<b>⊘</b>	0	<b>⊘</b>
KETONES Acetone Methyl ethyl ketone	<b>⊘</b>	<b>⊗</b>	<b>⊗</b>	<b>⊗</b>	<b>⊗</b>	∅
ALKALIS Ammonium hydroxide 20% Sodium hydroxide 10%	0	0	0	<b>O</b>	0	0
HYDROCARBONS Gasoline (unleaded) Mineral spirits	•	0	0	<b>O</b>	<b>O</b>	<b>O</b>
CHLORINATED HYDROCARBONS 1-1-1 Trichloroethane	•	•	0	•	•	•
SALTS Sodium chloride Trisodium phosphate	0	0	0	<b>O</b>	<b>O</b>	<b>0</b>
Key: Excellent Very Good	○ Fair ○ Poor					



# **Metal Repair Epoxies**

Metal-filled epoxy technology that allow for fast economical permanent repairs to power plant and mining equipment. They can be machined, tapped and drilled, and corrosion resistant to harsh chemicals. These products are available in pourable versions that can be used to provide accurate detail reproductions for short run prototype mold patterns, holding fixtures and forming dies.

#### **Devcon® Wear Resistant** Putty (WR-2)

Smooth, non-rusting, all-purpose epoxy putty for repairs requiring low-friction finishes, such as machine lathe beds.

- Bonds to steel, iron, aluminum, ceramic, concrete, brass, and some plastics
- Contains wear-resistant fillers for low riction applications

Item#	Size
11410	1 lb
11420	3 lb

#### Devcon® Cleaner Blend 300

Safe, multi-purpose, nontrichloroethane based degreaser for removing heavy grease and oil from metal surfaces.

- Needs no rinsing; leaves no residue
- Evaporates fast

Item#	Size
19510	1 pt

#### Devcon<sup>®</sup> FasMetal™

High-performance, alumina-filled epoxy for making fast, dependable emergency repairs to leaks in pipes.

- Hardens in 5 minutes
- Economical and convenient

em#	Size:		ARS
780	1 lb		
7700	טו ו	73.0	THE R. P. LEWIS CO., LANSING

#### **Devcon® Liquid Release Agent**

Silicone release agent prevents Devcon's epoxy and urethane compounds from sticking to patterns or mold surfaces.

- Produces a high gloss finish
- Facilitates the accurate duplication of intricate details

Item #	Size
19600	1 pt



### **Devcon® Wet Surface Repair**

High-performance technology for repairing, patching, and rebuilding equipment in habitually wet environments, including under

- Non-rusting; easy-to-mix and apply
- Eliminates the need for substrate to be thoroughly dry before repair

Item #	Size
11801	1 lb

### Putty Repair (UW)









Physical Properties	Devcon <sup>c</sup> Bronze Putty (BR)	Devcon <sup>®</sup> Wear Resistant Putty (WR-2)	Devcon Wet Surface Repair Putty (UW)	Devcon° FasMetal™	Devcon HVAC Repair (Special F)
Color	Bronze	Dark Grey	Grey	Grey	Grey
Mix ratio by weight / volume resin:hardener	9:1 / 3:1	9:1 / 4:1	1.4:1 / 1:1	1.07:1 / 1:1	0.9:1 / 1:1
Mixed viscosity cP	Putty	Putty	Putty	Putty	40,000
Functional cure hours	16	16	24	1	16
Pot life minutes @ 75°F	35	45	45	4	60
Specific volume inches³/pound	12.4	13.9	17.0	17.2	16.1
Coverage per pound inches <sup>2</sup> @ 1/4" thickness	50	56	68	69	64
Cured hardness (ASTM D2240) Shore D	85	85	82	90	85
Cured shrinkage (ASTM D2566) inch/inch	0.0010	0.0005	0.0020	0.0093	0.0008
Adhesive tensile shear (ASTM D1002) psi	2,680	2,200	2,685	2,000	2,500
Compressive strength (ASTM D695) psi	8,540	9,800	5,625	12,700	8,420
Flexural strength (ASTM D790) psi	6,180	6,500	4,990	7,700	6,260
Modulus of elasticity (ASTM D638) psi x 10 <sup>5</sup>	8.0	7.5	7.5	8.5	7.8
Coefficient of thermal expansion (ASTM D696) [(in)/(in x 'F)] x 10 °	33	32	18	32	29
Thermal conductivity (ASTM C177) [(cal x cm)/(sec x cm² x °C)] x 10 <sup>-3</sup>	1.57	1.67	1.41	2.04	1.73
Dielectric constant (ASTM D150)	75.0	6.3	8.6	18.6	21.4
Dielectric strength (ASTM D149 ) volts/mil	25	400	150	370	100
Maximum continuous dry service temperature °F	250	250	250	250	250
Maximum continuous wet service temperature °F	120	120	120	N/A	110

Chemical Resistance	Devcon <sup>°</sup> Bronze Putty (BR)	Devcon <sup>•</sup> Wear Resistant Putty (WR-2)	Devcon Wet Surface Repair Putty (UW)	Devcon° FasMetal™	Devcon° HVAC Repair (Special F)
ACIDS Acetic 10% Hydrochloric 10% Sulfuric 10%	○ •		0	○ ●	○ •
ALCOHOLS Methanol Isopropanol	0	0	<b>O</b>	0	0
KETONES Acetone Methyl ethyl ketone	0	0	<b>O O</b>	<b>O O</b>	0
ALKALIS Ammonium hydroxide 20% Sodium hydroxide 10%	•	•	•	•	0
HYDROCARBONS Gasoline (unleaded) Mineral spirits	•	•	•	<b>O</b>	•
CHLORINATED HYDROCARBONS 1-1-1 Trichloroethane	•	•	•	0	0
SALTS Sodium chloride Trisodium phosphate	•	•	•	0	•

Key: Excellent Very Good Fair Poor

# **Crusher Backing**

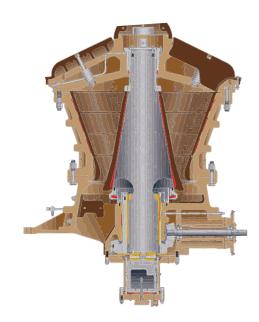
Devcon® offers a unique combination of crusher backing and concave sealing solutions. Devcon Korrobond 65 is used as shock absorbing compound in cone crushing machines. This formulation is used to produce a low viscosity, tough and flexible backing material which reinforces and supports crusher wear parts, absorbs and dampens impact of the liner to the crusher, and servers as a damper when subjected to impact and shock.

#### **Devcon Korrobond 65**

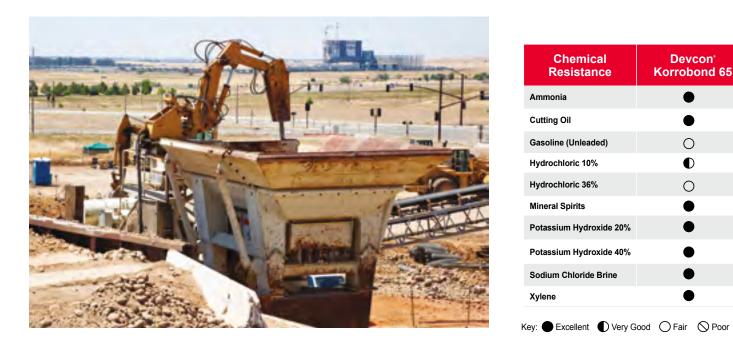
High-strength liquid epoxy with the necessary resiliency to withstand forces generated by crushers and mills. It serves as a backing and reinforcing layer between machine parts and as a damper when subjected to impact and shock

- 100% solids no solvents
- · High compression and impact strength
- Negligible shrink
- Easy to pour; easy to use
- Low exothermic reaction

tem#	Size:
81065	22 lb
31070	44 lb



Physical Properties	Devcon <sup>°</sup> Korrobond 65
Color	Light Grey
Mix ratio by weight / volume resin:hardener	13.3:1 / 7:1
Mixed viscosity cP	>20,000 CPs
Functional cure hours	8-10
Pot life minutes @ 75°F	15-20
Specific volume inches ³/pound	17.2
Cured hardness (ASTM D2240) Shore D	85
Cured shrinkage (ASTM D2566) inch/inch	0.01%
Adhesive tensile shear (ASTM D1002) psi	> 354 Kg/m2
Compressive strength (ASTM D695) psi	135 +/-7 Mpa / 19,500 +/-1000 PSI
Flexural strength (ASTM D790) psi	9.983
Side Impact (in - lbs)	98
Maximum continuous dry service temperature °F	250
Maximum continuous wet service temperature °F	120



Chemical Resistance	Devcon <sup>°</sup> Korrobond 65
Ammonia	•
Cutting Oil	•
Gasoline (Unleaded)	0
Hydrochloric 10%	$lackbox{0}$
Hydrochloric 36%	0
Mineral Spirits	•
Potassium Hydroxide 20%	•
Potassium Hydroxide 40%	•
Sodium Chloride Brine	•
Xylene	•

### **Surface Preparation**

The key to a successful repair is proper preparation and thorough cleaning prior to applying repair products or protective coatings.

#### **General Surface Preparation**

In general, the following steps will help you properly prepare a surface prior to applying Devcon® products:

- 1) Make sure the surface is completely dry. Moisture will adversely affect the strength of the bond to the surface.
- 2) Remove all surface contamination (paint, rust and grime) by abrasive blasting, sanding or other mechanical means.
- 3) Degrease with Devcon® Cleaner Blend 300.
- 4) Abrade the surface to roughen it and create a surface profile.
- 5) Use the appropriate Devcon® primer.

For detailed surface preparation procedures, refer to the appropriate substrate category and tech data sheet.

#### **Aluminum Surfaces**

Oxidation on aluminum surfaces reduces epoxy adhesion. This oxidation film must be removed before repairing aluminum with Devcon® Metal Repair Epoxies.

To properly prepare an aluminum surface:

- 1) Remove oxidation by mechanical means such as grit-blasting or by chemical means such as acid etching.
- 2) Follow the General Surface Preparation guidelines.

#### Metal

To properly prepare a metal surface:

1) If the surface is oily or greasy, degrease it with Devcon® Cleaner Blend 300.

Before

2) Abrasive-blast the surface with 25-40 grit (or

- coarser) to produce a good surface profile. If you cannot abrasive-blast the surface, use a 60 grit or coarser sandpaper to achieve a similar result.
- 3) Immediately coat the metal surface with Flexane® FL-10 Primer to prevent it from rusting.
- 4) Make repairs as soon as possible after blasting the substrate to avoid oxidation or flash rusting.

#### Rubber

To properly prepare a rubber surface:

- Abrade the surface using a wire brush or a grinder with a wire wheel to produce a good surface profile. (Oils and contaminants imbedded in the rubber surface are typically released in this process.
- 2) Remove all oil and grease from the rubber surface with Devcon® Cleaner Blend 300 and an abrasive pad.
- 3) Wipe the surface with a clean, lint-free cloth continuously until black residue is no longer picked up by the white cloth.
- 4) Prime the surface as follows:

Rubber to metal: Coat all metal surfaces (including stainless steel and aluminum) with two coats of Flexane® FL-10 Primer. The primer will significantly improve adhesion of Devcon products to metal.

Rubber to metal (for immersion service):
Coat any metal that will be immersed in an aqueous solution with Flexane® FL-10 Primer and Flexane® FL-20 Primer. First apply the FL-10 Primer and let dry for 60 minutes. Next, coat with the FL-20 Primer. Let dry for 30 minutes before applying the Devcon® product.



### (Surface Preparation continued)

Rubber to rubber: Coat all gum rubbers, neoprene or cured urethanes with a thin coat of Flexane® FL-20 Primer. For ultimate peel strength, use Surface Conditioner (on rubber only).

Rubber to concrete: Coat concrete with Flexane® FL-20 Primer. Multiple coats may be necessary because concrete is very porous. Let the primer dry for 30 minutes between coats.

Rubber to wood or fiberglass: Coat these surfaces with Flexane® FL-20 Primer. Soft woods will require a second coat due to their absorption characteristics.

When bonding rubber to other surfaces, contact Technical Service for a recommendation on primers and surface preparation procedures.

#### Concrete

To properly prepare a concrete surface:

- 1) Degrease the surface with Devcon® Cleaner Blend 300 or any water-based emulsifying cleaner and rinse thoroughly. Multiple cleanings may be necessary. Power washers or steam cleaners are very effective and can reduce the number of passes needed to clean the surface. Let the surface dry thoroughly before proceeding.
- 2) Remove any cap-curing agents that were applied to the concrete when it was poured. These agents form a dense, impenetrable finish, making it almost impossible for coatings to adhere to them.
- 3) Shot blast (Blastrac®) the concrete to create a porous surface profile. This will improve surface "wetting" and coating or repair product adhesion.

#### **Wet Surfaces**

In general, Devcon® repair products and protective coatings will not adhere to wet surfaces.

To properly repair a wet surface:

- 1) Review the General Surface Preparation guidelines.
- 2) Thoroughly dry the surface. (If you are using Devcon® Wet Surface Repair Putty (UW), refer to Underwater Surfaces section.)
- 3) Stop all leaks or seepage as follows:
- Shut off the flow or pressure;
- Fit a wooden peg or a sheet metal screw into the hole; or
- Stuff wax, cork, plumber's caulk, Mortite or a cloth into the opening.

If the leak is caused by corrosion, the sidewall might be weak. Open the orifice until sound metal is exposed and the wall is thick enough to be plugged.

4) Remove surface condensation (sweating) or dampness with a heat gun or similar device.

If you have questions, please contact Technical Service: 1-855-489-7262

Blastrac® is a registered trademark of Blastrac, NA



# **Agency Approvals**

MIL-PRF-24176C, Type I         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           MIL-PRF-24176C, Type I         Titanium Putty         10760, 10770         1 lb, 2 lb           MIL-PRF-24176C, Type I         Ceramic Repair Putty         11700         3 lb           MIL-PRF-24176C, Type II         Aluminum Putty (F)         10610, 10620         1 lb, 3 lb           MMM-A-1754         Plastic Steel® Liquid (B)         10210, 10220, 10230         1 lb, 4 lb, 25 lb           MMM-A-1754         Aluminum Liquid (F-2)         10710, 10720         1 lb, 3 lb           ABS         Flexane® Brushable         15350         1 lb           ABS         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
MIL-PRF-24176C, Type II         Ceramic Repair Putty         11700         3 lb           MIL-PRF-24176C, Type II         Aluminum Putty (F)         10610, 10620         1 lb, 3 lb           MMM-A-1754         Plastic Steel® Liquid (B)         10210, 10220, 10230         1 lb, 4 lb, 25 lb           MMM-A-1754         Aluminum Liquid (F-2)         10710, 10720         1 lb, 3 lb           ABS         Flexane® Brushable         15350         1 lb           ABS         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
MilL-PRF-24176C, Type II         Aluminum Putty (F)         10610, 10620         1 lb, 3 lb           MMM-A-1754         Plastic Steel® Liquid (B)         10210, 10220, 10230         1 lb, 4 lb, 25 lb           MMM-A-1754         Aluminum Liquid (F-2)         10710, 10720         1 lb, 3 lb           ABS         Flexane® Brushable         15350         1 lb           ABS         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
MMM-A-1754         Plastic Steel® Liquid (B)         10210, 10220, 10230         1 lb, 4 lb, 25 lb           MMM-A-1754         Aluminum Liquid (F-2)         10710, 10720         1 lb, 3 lb           ABS         Flexane® Brushable         15350         1 lb           ABS         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
MMM-A-1754         Aluminum Liquid (F-2)         10710, 10720         1 lb, 3 lb           ABS         Flexane® Brushable         15350         1 lb           ABS         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
ABS         Flexane® Brushable         15350         1 lb           ABS         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
ABS         Plastic Steel® Putty (A)         10110, 10120, 10130         1 lb, 4 lb, 25 lb           ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
ABS         Plastic Steel® 5 Minute® Putty (SF)         10240         1 lb           ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
ABS         Titanium Putty         10760, 10770         1 lb, 2 lb           ABS         Stainless Steel Putty (ST)         10270         1 lb	
ABS Stainless Steel Putty (ST) 10270 1 lb	
ABS Ceramic Repair Putty 11700 3 lb	
ABS Plastic Steel® Liquid (B) 10210, 10220, 10230 1 lb, 4 lb, 2 5lb	
<b>ABS</b> Aluminum Liquid (F2) 10710, 10720 1 lb, 3 lb	
<b>ABS</b> Brushable Ceramic Red 11760, 11762 2 lb, 12 lb	
<b>ABS</b> Brushable Ceramic Blue 11765, 11767 2 lb, 12 lb	
ABS Brushable Ceramic White 11770 2 lb	
NSF/ANSI 61 Stainless Steel Putty 10270 1 lb	
NSF/ANSI 61 Brushable Ceramic White 11770 2 lb	





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