



# Metal Repair Liquids

## Technical Information



Physical Properties	Plastic Steel® Liquid (B)	Aluminum Liquid (F-2)	HVAC Repair (Special F)	FasMetal™	Brushable Ceramic	
<b>Color</b>	Dark Grey	Aluminum	Grey	Grey	Red, Blue	White
<b>Mix ratio by weight / volume</b> <i>(resin:hardener)</i>	9:1 / 3:1	9:1 / 5:1	0.9:1 / 1:1	1.07:1 / 1:1	5.6:1 / 3.4:1	8.5:1 / 5.6:1
<b>Mixed viscosity</b> cps	15 / 25,000	15 / 25,000	40,000	Putty	32,000	40,000
<b>Functional cure</b> hours	16	16	16	1	16	16
<b>Pot life</b> minutes @ 75 °F	45	75	60	4	40	21
<b>Specific volume</b> inches <sup>3</sup> /pound	13.1	17.5	16.1	17.2	16.5	16.5
<b>Coverage per pound</b> <i>inches<sup>2</sup> @ 1/4" thickness</i>	52	70	64	69	7.6 <sup>1</sup>	7.6 <sup>1</sup>
<b>Cured hardness</b> <b>(ASTM D2240)</b> Shore D	85	85	85	90	90	87
<b>Cured shrinkage</b> <b>(ASTM D2566)</b> inch/inch	0.0006	0.0009	0.0008	0.0093	0.0020	0.0020
<b>Adhesive tensile shear</b> <b>(ASTM D1002)</b> psi	2,800	2,700	2,500	2,000	2,000	2,000
<b>Tensile strength</b> <b>(ASTM D638)</b> psi	4,900	5,000	3,720	3,145	3,800	3,800
<b>Compressive strength</b> <b>(ASTM D695)</b> psi	10,200	9,820	8,420	12,700	15,200	15,200
<b>Flexural strength</b> <b>(ASTM D790)</b> psi	7,480	3,540	6,260	7,700	8,000	8,000
<b>Modulus of elasticity</b> <b>(ASTM D638)</b> psi x 10 <sup>-3</sup>	8.5	7.5	7.8	8.5	9.0	9.0
<b>Coefficient of thermal expansion</b> <b>(ASTM D696)</b> <i>[(in)/(in x °F)] x 10<sup>-6</sup></i>	38	50	29	32	19	19
<b>Thermal conductivity</b> <b>(ASTM C177)</b> <i>[(cal x cm)/(sec x cm<sup>2</sup> x °C)] x 10<sup>-3</sup></i>	1.39	1.58	1.73	2.04	1.92	1.92
<b>Dielectric constant</b> <b>(ASTM D150)</b> 1 KHz	67.5	8.6	21.4	18.6	38.7	38.7
<b>Dielectric strength</b> <b>(ASTM D149)</b> volts/mil	30	100	100	370	382	382
<b>Maximum continuous service temperature</b> °F dry	250	250	250	250	350	350

NOTES: <sup>1</sup> Coverage/pound @ 15 mils (feet<sup>2</sup>)

Key: ● Excellent ○ Very Good ○ Fair ○ Poor

Chemical Resistance						
<b>ACIDS</b>						
Acetic 10%	○	○	○	○	○	○
Hydrochloric 10%	●	●	●	○	○	●
Sulfuric 10%	●	●	●	○	○	●
<b>ALCOHOLS</b>						
Methanol	○	○	○	○	○	●
Isopropanol	○	○	○	○	○	●
<b>KETONES</b>						
Acetone	○	○	○	○	○	○
Methyl ethyl ketone	○	○	○	○	○	○
<b>ALKALIS</b>						
Ammonium hydroxide 20%	●	○	○	○	○	●
Sodium hydroxide 10%	●	○	○	○	○	●
<b>HYDROCARBONS</b>						
Gasoline (unleaded)	●	●	●	●	●	●
Mineral spirits	●	●	●	●	●	●
<b>CHLORINATED HYDROCARBONS</b>						
Perchloroethylene	●	●	●	○	○	●
1-1-1 Trichloroethane	●	●	●	○	○	●
<b>SALTS</b>						
Sodium chloride	●	●	●	○	○	●
Trisodium phosphate	●	●	●	○	○	●