



their safety is essential.
 Protecting people, property, and the planet.

CR-3000—The Chemical-Resistant Elastomer

Recommended for Immersion Service Secondary Containment Not Recommended

CR-3000 (patented)

	24 Hr. Wt. Gain	7 Days	30 Days	60 Days	6 Months	1 Year	>1 Year
Acetic 10%	0.0001%	0.015%	0.065%	0.055%	—	—	—
Acetic 40%	0.19%	0.95%	—	—	3.66% (10 months)	—	—
Acetic 50%	—	—	—	—	4.88% (11 months)	—	—
Diesel	0.00%	0.00%	0.00%	0.005%	—	—	0.05% (3 years)
Ethanol	—	—	—	4.37% (3 months)	—	—	—
Ethanol 47.5% Methanol 47% MIBK 5%	1.24%	2.095%	2.715%	—	4.065%	—	—
Gasoline (unleaded)	0.035%	0.25%	0.70%	1.15%	2.58%	—	2.375% (17 months) Shore D 54
Hydrochloric Acid HCl 24%	0.00%	0.005%	0.01%	—	—	—	—
Jet Fuel JP -1, 2, 3	0.00%	0.00%	0.00%	0.005%	—	—	0.7% (5 year)
P-7 Jet Fuel 60% Toluene	0.305%	1.205%	2.05%	2.465%	4.17%	—	4.335% (19 months)
Methanol	1.15%	1.705%	—	—	6.20%	—	4.56% (19 months)
Phosphoric Acid H ₃ PO ₄ 50%	0.00%	0.0005%	0.01%	—	—	—	—
Skydrol	0.195%	1.15%	2.465% (25 days)	—	6.85%	8.25%	—
Sodium Hypochlorite 12%	—	—	—	—	-0.75% (8 months)	—	—
Sodium Hydroxide NaOH 50%	0.00%	0.0005%	—	0.35%	—	—	1.18% (2 years)
Sulphuric Acid H ₂ SO ₄ 50%	0.00%	0.00%	—	—	—	3.075%	—
Sulphuric Acid 14% Phosphoric Acid 30%	—	—	—	—	—	1.18%	-0.43% (2 years)
Sulphuric Acid H ₂ SO ₄ 93%	Destroyed (2 days)	—	—	—	—	—	—
Water	0.00%	0.00%	—	—	—	—	—
Xylene	0.55%	2.30%	—	10.0%	10.815%	—	—

■ See "Note" on page 2

NOTE:

Immersion samples were 'free films' (6 sides exposed). In-service containment liners only have one side of the liner exposed to reagents. To calculate the approximate chemical absorption, we have divided the test sample's weight gain percentage in half as indicated on the chart.

- A spray-applied elastomer with chemical resistance
Comparable to many epoxies
- Return to service in hours, not days
- Typically applied in a single 'multi-pass' application
Providing substantial labor savings
- Self-priming in most instances
**See Outstanding Adhesion without Primer*
- 100% solids - No VOC's - 1:1 ratio
- Apply with conventional heated, plural component equipment
min. 2500 psi - min. temperature 165°F
- Explosion-proof equipment not required
For confined space applications

*Outstanding Adhesion without Primer

Sample plate was abrasive blasted per SSPC-SP10 with a surface profile of 5.6 mils. Blast media used was Reed Mineral Black Beauty 12/40. Surface was coated to a thickness of 60-80 mils of CR-3000 Elastomer with Ultra Bond adhesion ad-mixture. Coating was allowed to cure for one week. Surface was abraded with 60 grit sandpaper and cleaned with a MEK wipe. Four 20mm dollies were glued on with four types of single component glues. The contact surface of the dollies were given a light abrasive blast for better bonding. The first glue used was 3M™ Super Strength with a pull of 186 PSI which resulted in total glue failure with no delamination of coating from substrate. The second glue used was Loctite® Super Glue All Plastics with a

pull of 1,485 PSI which resulted in total glue failure with no delamination of coating from substrate. The third glue used was Original Super Glue® with a pull of 1,485 PSI which resulted in total glue failure with no delamination of the coating from substrate. The fourth glue used was Loctite® Super Glue with a pull rate of 2,637 PSI which resulted in total glue failure with no visible signs of coating delamination from the substrate. The most effective glue used was the Loctite® Super Glue.



Text & photo provided by Abbott Consulting

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Comparing Chemical Resistance of CR-3000 to Common Elastomers

	CR-3000			Viton Fluoroelastomer			NBR Nitrile Butadiene Rubber			Nitrile Nitrile Rubber		
	24 Hr. Wt. Gain	7 Days	6+ Months	24 Hr. Wt. Gain	7 Days	6+ Months	24 Hr. Wt. Gain	7 Days	6+ Months	24 Hr. Wt. Gain	7 Days	6+ Months
Acetic 40%	0.19%	0.95%	3.66% (10 months)	1.60%	2.495%	26.25% (9 months)	-	-	-	-	-	-
Gasoline	0.035%	0.25%	2.58% (6 months)	0.10%	2.555%	2.765% (9 months)	6.85%	8.80%	9.70% (9 months)	7.10%	7.54%	5.65% (9 months)
P-7 Jet Fuel 60% Toluene	0.305%	1.205%	4.17% (6 months)	0.005%	0.15%	2.54% (9 months)	11.00%	12.15%	9.86% (9 months)	10.50%	9.0%	6.70% (9 months)
Methanol 99%	2.15%	4.20%	6.21% (6 months)	8.40%	12.7%	5.935% (9 months)	2.85%	3.05%	3.42% (9 months)	1.00%	1.25%	0.66% (9 months)
Xylene	0.55%	2.30%	10.815% (6 months)	0.60%	1.40%	4.015% (9 months)	36.05%	35.95%	21.365% (9 months)	29.50%	27.05%	17.64% (9 months)