



# RUBBEREX CHEMICAL RESISTANCE GUIDE

## DEGRADATION & PERMEATION TEST DATA

CHEMICAL AND CONCENTRATION	NATURAL RUBBER RF-1			
	En 374 Class.	Avg. Normalized B/T Time (Min)	Avg. Perm. Rate $\mu\text{g}/\text{cm}^2 \cdot \text{Min}$	Avg. Degrd. Rate
1. Acetaldehyde, 99.5%	0	10	139.60	G
2. Acetic Acid, 99+%	4	167	5.50	E
3. Acetone, 99.5%	1	14	7.00	E
4. Acetonitrile, 99%	2	30	4.77	E
5. Acrylic Acid, 99%	4	88	6.20	G
6. Ammonium Fluoride, 40%	6	>480	<0.005	E
7. Ammonium Hydroxide, 85%	3	60	3.13	E
8. Amyl Acetate, 100%	-	-	-	NR
9. Amyl Alcohol, 99+%	6	>480	<0.070	E
10. Aniline, 99+%	3	70	4.40	E
11. Aqua Regia	-	-	-	NR
12. Benzaldehyde, 99.5%	1	23	11.40	P
13. Bromopropionic Acid, Sat.	4	240	>12.29	E
14. Butyl Acetate, 99+%	-	-	-	NR
15. Butyl Alcohol, 99%	4	142	1.78	E
16. Butyl Cellosolve, 99+%	3	68	91.20	E
17. Butyrolactone, 99+%	3	100	1.40	E
18. Carbon Disulfide, 99.9%	-	-	-	NR
19. Carbon Tetrachloride, 99+%	-	-	-	NR
20. Cellosolve Acetate, 99+%	1	25	25.00	G
21. Chromic Acid, 50%	-	-	-	NR
22. Citric Acid, 10%	6	>480	<0.003	P
23. Cyclohexanol, 98%	5	>359	0.29	P
24. Diacetone Alcohol, 99%	0	<6	360.30	P
25. Dibutyl Phthalate, 99%	6	>480	0.05	G
26. Diethylamine, 99+%	-	-	-	NR
27. Diisobutyl Ketone, 80%	-	-	-	P
28. Dimethyl Acetamide, 99+%	2	47	9.50	P
29. N,N-Dimethylformamide, 99+%	3	67	8.10	G
30. Dimethyl Sulfoxide, 99+%	5	>420	0.46	E
31. Dioctyl Phthalate, 99%	-	-	-	P
32. 1,4-Dioxane, 99.9%	1	16	75.70	F
33. Epichlorohydrin, 99+%	1	24	42.0	F
34. Ethyl Acetate, 99+%	0	6	1.70	G
35. Ethyl Alcohol, 90+%	4	175	0.44	E
36. Ethyl Ether, 99+%	0	4	9.80	F
37. Ethyl Glycol Ether, 99%	3	77	6.3	F
38. Ethylene Glycol, 99+%	6	>480	0.01	E
39. Formaldehyde, 99%	6	>480	0.03	E
40. Formic Acid, 95+%	6	>480	<0.001	E
41. Freon TF, 99+%	-	-	-	NR
42. Furfural, 99%	1	<24	119.3	E
43. Gasoline, White, 100%	-	-	-	NR
44. Hexamethyldisilazine, 97%	4	194	11.1	E
45. Hexane, 99+%	-	-	-	NR
46. Hydrazine, 65%	5	271	1.38	E
47. Hydrochloric Acid, 10%	6	>480	<0.03	E
48. Hydrochloric Acid, 38%	6	>480	<0.026	E
49. Hydrofluoric Acid, 48%	1	<15	4.89	E
50. Hydrogen Peroxide, 30%	6	>480	<0002	E

Avg. — Average  
 B/T — Breakthrough  
 C/B — Catastrophic Breakthrough  
 Perm. — Permeation  
 Degrd. — Degradation  
 En 374 Class. — European Classification  
 NR — Not Rated  
 - — Not Tested

### KEY TO CHEMICAL RESISTANCE RATINGS

% Weight Change (Kald)	Degradation Rating
0 to 10	Excellent (E)
11 to 25	Good (G)
26 to 45	Fair (F)
50 to 65, or small loss	Poor (P)
Above 65	Not Recommended (NR)

NR - Avoid use of gloves with this chemical

En 374 Class	Permeation Time (Minutes)
C	<10 min
1	>10 min
2	>30 min
3	>60 min
4	>120 min
5	>240 min
6	>480 min

