

Tubing Resistance Guide

Silicone and TPE Tubing

Chemical	Silicone	TPE
Acetamide	B	B
Acetic Acid	B	A
Acetic Anhydride	B	A
Acetone	B	NR
Aqueous Ammonia	A	A
Anhydrous Ammonia	B	A
Benzyl Alcohol	A	NR
Butanol	B	A
Butylacetate	NR	NR
Calcium Hydroxide	A	A
Chloroform	NR	NR
Cyclohexane	NR	NR
Diacetone Alcohol	NR	A
Dimethyl Formamide	B	A
1,4 Dioxane	NR	NR
Ethanol	B	A
Ethyl Acetate	B	A
Formic Acid Conc.	B	A
Glycerine	A	B
General Glycols	TEST	TEST
Hexane	NR	NR
Hydrochloric Acid 10%	A	A
Hydrochloric Acid 30%	B	A
Hydrochloric Acid 50+%	NR	A
Hydrogen Peroxide 10%	A	A
Hydrogen Peroxide 30%	A	A
Hydrogen Peroxide 100%	B	A
Isopropyl Alcohol	A	A
Methanol	A	A
Methyl Ethyl Ketone	NR	NR
Methylene Dichloride	NR	NR
Nitric Acid 10%	C	A
Nitric Acid 65%	NR	A
Phosphoric Acid 30%	C	A
Phosphoric Acid 85%	NR	A
Potassium Hydroxide Solution 50%	C	A
Sodium Carbonate	A	A
Sodium Chlorate 20%	C	A
Sodium Hydroxide Solution 10%	A	A
Sodium Hydroxide Solution 50%	A	A
Sodium Chloride	A	A
Stearic Acid	B	A
Sulphuric Acid 10%	B	A
Sulphuric Acid 20%	NR	A
Tetrahydrofuran	NR	NR
Toluene	NR	NR
Turpentine	NR	NR
Xylo	NR	NR

This chemical compatibility chart contains recommendations for combinations of elastomeric materials in contact with various corrosives and other environmental conditions. All results are believed to be based on valid laboratory, field tests, or experience however no guarantee is expressed or implied. It is the user's responsibility to ensure the suitability of ILC Dover tubing products for all intended uses. The user is responsible for any required testing. Any data supplied by ILC is provided as a guideline from The Chemical Resistance Guide for Elastomers (Compass Publications) and is believed to be reliable; however, nothing stated shall constitute a guarantee, recommendation, or warranty for any application. All advice is given and accepted at the user's risk.



Note: All ratings are based on room temperature of 70° F (21° C). Chemical resistance may be affected by elevated temperatures. Additional chemical compatibility data available upon request.

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Compatibility Rating Key

Symbolic Rating	Volumetric Swelling	Loss of Tensile Strength	Description of Attack
A	less than 15% in 30 days to one year	less than 15% in 30 days to one year	Excellent, little or not swelling, softening or surface deterioration
B	less than 30% in 30 days to one year	less than 30% in 30 days to one year	Good chemical resistance, minor chemical attack, swelling, softening or surface deterioration
C	less than 50% in 30 days to one year	less than 60% in 30 days to one year	Limited chemical resistance, moderate chemical attack, conditional service
NR	greater than 50% immediately to one year	greater than 60% immediately to one year	Severe chemical attack, swelling, softening, dissolving, not recommended for use.



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