

BIO•CHEM FLUIDICS

Material Data Sheet Bio-Chem (C-Flex®) tubing

Bio-Chem (C-Flex) tubing is a proprietary thermoplastic elastomer complying with USP XXII, Class VI, FDA and USDA standards and is FDA master file listed.

Physical Property	ASTM Method	Typical Values
Hardness, Durometer A	D-2240	52
Tensile Strength, psi	D- 412	1310
Elongation, %	D- 412	725
Tear Resistance, Die B	D- 624	124
Compression Set %		
23°C	D- 395	16
70°C	D-395	67

This data is based on typical values and is presented here as a guideline only. Please contact Bio-Chem Fluidics if you need more specific data.

C-Flex® is a registered trade-mark of Saint-Gobain Performance Plastics

Engineering Data Sheet

Bio-Chem Valve, Inc.

Revision: -

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EDS-002

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CHEMICAL RESISTANCE*

A = Acceptable
N = Not Acceptable
C = Test before using

1. Acetaldehyde	A	67. Ethers	N	134. Oleic acid	A
2. Acetates (low mol. wt)	A	68. Ethyl acetate	A	135. Oxalic acid	A
3. Acetic acid (less than 5%)	A	69. Ethyl alcohol (Ethanol)	C	136. Oxygen (gas)	A
4. Acetic acid (more than 5%)	A	70. Ethyl bromide	A	137. Perchloric acid	A
5. Acetic anhydride	C	71. Ethyl chloride	A	138. Perchloroethylene	C
6. Aceto nitric	A	72. Ethylamine	A	139. Phenol	N
7. Acetone	A	73. Ethylene chlorohydrin	A	140. Phosphoric acid (ortho)	A
8. Acetyl bromide	A	74. Ethylene dichloride	A	141. Phthalic acid	N
9. Acetyl chloride	A	75. Ethylene glycol	C	142. Plating solutions	A
10. Air	A	76. Ethylene oxide	C	143. Polyglycol	C
11. Alcohols	C	77. Fatty acids	C	144. Potassium carbonate	A
12. Aliphatic hydrocarbons (at least C ₄ and above)	N	78. Ferric chloride	A	145. Potassium chlorate	A
13. Aluminum chloride	A	79. Ferric sulfate	A	146. Potassium hydroxide (med conc)	A
14. Aluminum sulphate	A	80. Ferrous chloride	A	147. Potassium hydroxide (conc)	A
15. Alums	A	81. Ferrous sulfate	A	148. Potassium iodide	A
16. Ammonia (gas, liquid)	A	82. Fluoborate salts	A	149. Pyridine	A
17. Ammonium acetate	A	83. Fluoboric acid	A	150. Silicone fluids	A
18. Ammonium carbonate	A	84. Fluosilicic acid	A	151. Silicone oil	A
19. Ammonium chloride	A	85. Formaldehyde	A	152. Silver nitrate	A
20. Ammonium hydroxide	A	86. Formic acid	A	153. Soap solutions	A
21. Ammonium nitrate	A	87. Freon	C	154. Sodium bicarbonate	A
22. Ammonium phosphate	A	88. Gasoline (non-aromatic)	N	155. Sodium bisulfate	A
23. Ammonium sulfate	A	89. Gasoline (high aromaticity)	N	156. Sodium bisulfite	A
24. Amyl acetate	N	90. Glucose (dextrose)	A	157. Sodium borate	A
25. Amyl alcohol	N	91. Glue (water base)	A	158. Sodium carbonate	A
26. Amyl chloride	N	92. Glycerine	C	159. Sodium chlorate	A
27. Aniline	C	93. Hydrotic acid	A	160. Sodium chloride	A
28. Aniline hydrochloride	C	94. Hydro bromic acid	A	161. Sodium ferrocyanide	A
29. Antimony salts	A	95. Hydrochloric acid	A	162. Sodium hydrosulfite	A
30. Aqua regia (75% HCl 25% HNO ₃)	A	96. Hydrochloric acid (med conc)	A	163. Sodium hydroxide (dil)	A
31. Aromatic hydrocarbons	N	97. Hydrochloric acid (conc)	A	164. Sodium hydroxide (med conc)	A
32. Arsenic salts	A	98. Hydrocyanic acid	A	165. Sodium hydroxide (conc)	A
33. Barium salts	A	99. Hydrofluoric	A	166. Sodium hypochlorite (below 5%)	A
34. Benzaldehyde	N	100. Hydrogen peroxide (dil)	A	167. Sodium hypochlorite (above 5%)	A
35. Benzene	N	101. Hydrogen peroxide (conc)	A	168. Sodium nitrate	A
36. Benzene sulfonic acid	A	102. Hydrogen sulfide	A	169. Sodium silicate	A
37. Benzoic acid	N	103. Hypochlorous acid	A	170. Sodium sulfide	A
38. Benzyl alcohol	N	104. Iodine and solutions	C	171. Sodium sulfite	A
39. Bleaching liquors (non-aromatic)	A	105. Kerosene	N	172. Steam (up to 40 psi)	C
40. Boric acid	A	106. Ketones (water soluble)	A	173. Stearic acid	A
41. Bromine	A	107. Lacquer solvents	N	174. Styrene	N
42. Butane	N	108. Lactic acids	A	175. Sulfur chloride	A
43. Butyl acetate	N	109. Lead Acetate	A	176. Sulfur dioxide	A
44. Butyl alcohol (Butanol)	C	110. Unseed Oil	N	177. Sulfur hexafluoride	A
45. Butyric acid	A	111. Lithium hydroxide	A	178. Sulfur trioxide	A
46. Calcium oxide (diluted)	A	112. Magnesium chloride	A	179. Sulfuric acid (dil)	A
47. Calcium salts	A	113. Magnesium sulfate	A	180. Sulfuric acid (med conc)	A
48. Carbon disulfide	N	114. Malic acid	A	181. Sulfuric acid (conc)	A
49. Carbon dioxide	A	115. Manganese salts	A	182. Sulfurous acid	A
50. Carbon tetrachloride	C	116. Mercury salts	A	183. Tannic acid	A
51. Chloroacetic acid	A	117. Methane	N	184. Tanning extracts	A
52. Chlorine (wet)	A	118. Methyl chloride	A	185. Tartaric acid	A
53. Chlorine (dry)	A	119. Mixed acid (40% sulphuric, 15% nitric)	A	186. Tin salts	A
54. Chlorobenzene	N	120. Molybdenum disulfide	A	187. Titanium salts	A
55. Chlorobromomethane	N	121. Monoethanolamine	C	188. Toluene (toluol)	N
56. Chloroform	N	122. Naphtha	N	189. Trichloroacetic acid	N
57. Chlorosulfonic acid	A	123. Natural gas	N	190. Trichloroethylene	N
58. Chromic acid	A	124. Nickel salts	A	191. Tri-sodium phosphate	A
59. Chromium salts	A	125. Nitric acid (diluted)	A	192. Turpentine	N
60. Cooper salts	A	126. Nitric acid (med conc)	A	193. Urea	A
61. Cresol	N	127. Nitric acid (conc)	A	194. Unc Acid	A
62. Cyclohexane	N	128. Nitrobenzene	N	195. Vinyl plasticol	N
63. Cyclohexanone	N	129. Nitrogen oxides	A	196. Water	A
64. Diacetone alcohol	A	130. Nitrous acid	A	197. Water (brme)	A
65. Dimethyl formamide	A	131. Oils, animal	C	198. Xylene (Xylo)	A
66. Essential oils	A	132. Oils, mineral	C	199. Zinc chloride	A
		133. Oils, vegetable	C		