

## 6. OTHER CHEMICAL RESISTANCE

| Chemicals   | Immersion conditions |            | Retention(%)     |            |              | Change ratio     |                  |
|---|----------------------|------------|------------------|------------|--------------|------------------|------------------|
|   | Temperature(°C)      | Time(days) | Tensile strength | Elongation | 100% Modulus | Hardness (point) | Volume change(%) |
| Water   | 100                  | 3          | 89               | 117        | 117          | 0                | 1.1              |
| Steam (6.2 atm.)  | 160                  | 7          | 91               | 84         | 110          | -3               | 4.6              |
| Bromine   |                      |            |                  |            |              |                  |                  |
| Bromine(32%)+Hydrochloric acid(18%)+Sulfuric acid(25%)                                    | R.T.                 | 7          | 54               | 136        | —            | —                | 6.2              |
|   | 100                  | 1          | 66               | 112        | 95           | -8               | 6.0              |
| Chlorine solution(Saturated)  | 100                  | 4          | 22               | 28         | 87           | -10              | 169              |
| Chlorine solution(Saturated)<br>+Sodium chloride(35%)+<br>Sodium hypochlorous acid(pH9.6) | 100                  | 2.5        | 69               | 78         | 86           | -9               | 5.9              |
| Bleaching liquor Ca(ClO) <sub>2</sub> (10%)   | 100                  | 7          | 112              | 89         | 148          | -2               | 0                |
| Sodium hypochlorous acid(10%)   | 100                  | 7          | 100              | 95         | 114          | -1               | 1.0              |
| Sodium chlorous acid (10%)  | 100                  | 7          | 80               | 93         | 57           | -12              | 22               |
| Sodium chlorous acid (10%)<br>+Acetic acid (pH3.5)  | 100                  | 1          | 67               | 105        | 39           | -16              | 24               |
| Sodium chlorous acid (10%)<br>+Sodium hydroxide (5%)                                      | 100                  | 7          | 88               | 85         | 108          | 0                | 0.6              |
| Sulfur dioxide (5%)<br>(Continuously blown)   | 40                   | 2          | 69               | 84         | 86           | -4               | 7.8              |
| Hydrogen peroxide (30%)   | 100                  | 7          | 105              | 99         | 110          | 0                | -1.1             |
| Hydrogen peroxide (15%)<br>+Sodium hydroxide (3%)   | 100                  | 7          | 107              | 111        | 96           | -2               | -1.8             |
| Lithium bromide (53~63%)  | 160                  | 11         | 106              | 106        | 113          | +1               | -0.3             |
| (Lithium chromic acid stabilizer)   | 200                  | 11         | 99               | 110        | 87           | +1               | -0.3             |
| Lithium bromide (53~63%)  | 160                  | 11         | 108              | 119        | 100          | +1               | -0.3             |
| (Organic stabilizer)  | 200                  | 11         | 95               | 118        | 90           | +3               | -0.2             |
| Potassium fluoride+hydrofluoric acid (1:1.8)  | 85                   | 11         | 94               | 111        | 109          | -3               | 0.4              |
| Triethylene glycol  | 230                  | 11         | 88               | 148        | —            | -5               | 7.7              |
|   | 230                  | 11         | 84               | 169        | —            | -6               | 8.8              |
|   | 230                  | 11         | 74               | 145        | —            | -9               | 8.5              |

### ● Solvent resistance

Immersion; R.T. × 7 days

| Solvent                | Volume change (%) | Solvent                  | Volume change (%) |
|------------------------|-------------------|--------------------------|-------------------|
| Methanol               | 0.2               | Benzene                  | 40                |
| Isoamyl alcohol        | 0                 | Nitrobenzene             | 5.6               |
| Carbitol               | 0                 | Oil of turpentine        | 2.9               |
| Methyl cellosolve      | 1.4               | Toluene                  | 41                |
| Acetic acid            | 71                | n-Hexane                 | 24                |
| Aceton                 | 50                | Chloroform               | 112               |
| Methyl ethyl ketone    | 58                | Carbon tetrachloride     | 86                |
| Methyl isobutyl ketone | 95                | Methyl chloroform        | 125               |
| Ethyl acetate          | 88                | Trichlorotrifluoroethane | 249               |
| Aniline                | 0.7               | Trichloroethylene        | 95                |