### Chemical Compatibility Quick Reference Chart

#### Chemical Resistance Classification

- **E**: 30 days of constant exposure causes no damage. Plastic may even tolerate for years.
- **G**: Little or no damage after 30 days of constant exposure to the reagent.
- **F**: Some effect after 7 days of constant exposure to the reagent. Depending on the plastic, the effect may be crazing, cracking, loss of strength or discoloration. Solvents may cause softening, swelling and permeation losses with LDPE, HDPE, PP, PPCO and PMP. The solvent effects on these five resins are normally reversible; the part will usually return to its normal condition after evaporation.
- **N**: Not recommended for continuous use. Immediate damage may occur. Depending on the plastic, the effect will be a more severe crazing, cracking, loss of strength, discoloration, deformation, dissolution or permeation loss.

This information is only a summary. To access our chemical resistance database, go to: [www.nalgenelabware.com/techdata/chemical/index.asp](http://www.nalgenelabware.com/techdata/chemical/index.asp)

### Resin Codes

<table>
<thead>
<tr>
<th>Resin Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECTFE</td>
<td>Halar® ECTFE (ethylene-chlorotrifluoroethylene copolymer)</td>
</tr>
<tr>
<td>ETFE</td>
<td>Tefzel® ETFE (ethylene-tetrafluoroethylene)</td>
</tr>
<tr>
<td>FEP</td>
<td>Teflon® FEP (fluorinated ethylene propylene)</td>
</tr>
<tr>
<td>FLPE</td>
<td>Fluorinated high-density polyethylene</td>
</tr>
<tr>
<td>HDPE</td>
<td>High-density polyethylene</td>
</tr>
<tr>
<td>LDPE</td>
<td>Low-density polyethylene</td>
</tr>
<tr>
<td>PC</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>PETG</td>
<td>Polyethylene terephthalate copolyester</td>
</tr>
<tr>
<td>PFA</td>
<td>Teflon® PFA (perfluoroalkoxy)</td>
</tr>
<tr>
<td>PMMA</td>
<td>Polymethyl methacrylate (acrylic)</td>
</tr>
<tr>
<td>PMP</td>
<td>Polymethylpentene (<em>TPX</em>)</td>
</tr>
<tr>
<td>PPO</td>
<td>Polystyrene</td>
</tr>
<tr>
<td>PSF</td>
<td>Polyvinylidene fluoride</td>
</tr>
<tr>
<td>PUR</td>
<td>Polyurethane</td>
</tr>
<tr>
<td>PVC</td>
<td>Polyvinyl chloride</td>
</tr>
<tr>
<td>PVDF</td>
<td>Polyvinylidene fluoride</td>
</tr>
<tr>
<td>ResMer</td>
<td>ResMer™ Manufacturing Technology</td>
</tr>
<tr>
<td>SAN</td>
<td>Styrene acrylonitrile</td>
</tr>
<tr>
<td>TFE</td>
<td>Teflon® TFE (tetrafluoroethylene)</td>
</tr>
<tr>
<td>TPE</td>
<td>Thermoplastic elastomer</td>
</tr>
<tr>
<td>XLPE</td>
<td>Cross-linked high-density polyethylene</td>
</tr>
</tbody>
</table>

* Halar is a registered trademark of Solvay Solexis.
† Or equivalent.
Tefzel and Teflon are registered trademarks of DuPont.

### Chemical Resistance Summary

#### Classes of Substances at 20°C

| Classes of Substances | E | E | E | E | E | E | E | E | E | E | G | G | G | G | E | E | E | E | F | F | G | E | E | G |
| Acids, dilute or weak | E | E | E | E | E | G | G | G | G | G | E | E | E | E | F | F | G | G |
| Acids,** strong and concentrated | E | G | G | G | G | G | N | N | N | E | E | G | G | N | G | F | G | F |
| Alcohols, aliphatic   | E | E | E | E | E | G | G | G | N | E | E | E | G | G | N | G | F | G |
| Aldehydes             | E | G | G | G | G | F | G | F | G | F | G | F | F | N | G | N | G | G |
| Bases/Alkali          | E | E | G | G | G | F | G | F | G | G | F | F | F | N | G | N | G | G |
| Esters                | G | E | G | G | G | G | N | N | N | N | N | E | G | N | N | N | N | G | F | N |
| Hydrocarbons, aliphatic| E | E | G | G | G | F | G | G | G | G | G | G | G | F | E | G | E |
| Hydrocarbons, aromatic | G | E | E | N | N | N | N | N | N | N | N | N | N | N | N | E | F | N |
| Hydrocarbons, halogenated| G | E | G | F | N | N | N | N | N | N | N | N | N | N | N | N | N | F | F | F | F |
| Ketones, aromatic      | G | E | G | N | N | N | N | N | N | F | N | N | N | N | N | F | N | F | F | F |
| Oxidizing Agents, strong| E | E | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F | F |

* For tubing chemical resistance, other than PVC, see tubing section.
** Except for oxidizing acids; for oxidizing acids, see “Oxidizing Agents, strong.”
*** TPE gaskets.