### SELECTING A MATERIAL

The charts below provide guidance for determining the feasibility of using certain enclosure materials in environments containing solvents and organics, alkalis and oxidizers, and acids and neutral salts. Materials are rated on a scale of recommended to limited use based upon their performance in resisting corrosion. While strength and corrosion resistance may be primary considerations, other factors such as impact resistance and ease of modifications may also factor into a selection. The basic material comparisons chart will further help you select the best non-metallic enclosure material for your application.

#### Non-Metallic Enclosures

<table>
<thead>
<tr>
<th>Enclosure Material</th>
<th>ABS</th>
<th>Polycarbonate</th>
<th>Fiberglass</th>
<th>Stainless Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (lbs.)</td>
<td>11</td>
<td>5</td>
<td>4.1</td>
<td>3.5</td>
</tr>
<tr>
<td>Flame Resistance</td>
<td>Satisfactory</td>
<td>Excellent</td>
<td>Self-extinguishing</td>
<td>Self-extinguishing</td>
</tr>
<tr>
<td>Corrosion Resistance</td>
<td>Excellent</td>
<td>Excellent</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-31˚F to 126˚F</td>
<td>-40˚C to 266˚C</td>
<td>-18˚C to 266˚C</td>
<td>-55˚C to 266˚C</td>
</tr>
<tr>
<td>Cutouts</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ease of modifications</td>
<td>Dusty</td>
<td>Dusty</td>
<td>Low dust</td>
<td>Low dust</td>
</tr>
<tr>
<td>Flammability</td>
<td>Self extinguishing</td>
<td>Self extinguishing</td>
<td>Not self extinguishing</td>
<td>Not self extinguishing</td>
</tr>
<tr>
<td>Moisture Resistance</td>
<td>Good</td>
<td>Excellent</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Impact resistance</td>
<td>Fair</td>
<td>Fair</td>
<td>Excellent</td>
<td>Excellent</td>
</tr>
<tr>
<td>Weight</td>
<td>11 lbs.</td>
<td>5 lbs.</td>
<td>4.1 lbs.</td>
<td>3.5 lbs.</td>
</tr>
</tbody>
</table>

### KEY FEATURES

- Corrosion and chemical resistance equivalent to stainless steel and far better than mild steel
- Lightweight material makes handling easier and reduces shipping costs
- Easy on-site modifications
- Many materials are recyclable

### THE CHOICE FOR HARSH ENVIRONMENTS

Effective and Economical Protection

- Designed to safely house electrical and electronic controls in the most punishing environments, non-metallic enclosures offer a combination of high performance and cost-effective protection. Non-metallic enclosure models are available in ABS, polyester, polysulphone and fiberglass, offering the right levels of protection for your challenge. These robust enclosures are ideal for outdoor and indoor applications in petroleum, chemical processing, water and wastewater treatment, pulp and paper, telecommunications, security and fire, marine and corrosive industrial environments.

- Highly resistant to alkalis, acids, and neutral salts
- Resistant to flammability
- Satisfactory flame spread rating
- Resistant to moisture, dust and static charge
- Impact resistant and provide maximum protection
- Easy on-site modifications
- Lightweight material makes handling easier and reduces shipping costs
- Corrosion and chemical resistance equivalent to stainless steel and far better than mild steel

- Selection

#### Selection Guidelines

1. **Corrosion Resistance**
   - Type 316 stainless steel
   - Type 304 stainless steel
   - Fiberglass
   - Polyester

2. **Weight**
   - Design consideration is important for portability

3. **Flame Resistance**
   - Self-extinguishing properties

4. **Cutouts**
   - Yes

5. **Ease of Modifications**
   - Dusty

**Important Notes**

- Non-Metallic enclosures are suitable for industrial environments with low corrosion and temperature requirements.
- The selection of a material is based on the specific environmental conditions and requirements of the application.
- Refer to chemical resistance charts for specific material performance in harsh environments.

---

### Effective and Economical Protection

**in Harsh and Corrosive Environments**

- **North America**
  - Minneapolis, MN
  - Tel: +1 763.437.0050
  - Tel: +1 612.539.1848
  - Toronto, Canada
  - Tel: +1 416.289.2770

- **South America**
  - Sao Paulo, Brazil
  - Tel: +55 11.9344.2200
  - Bahia, Brazil
  - Tel: +55 16.2522.0500

- **Europe**
  - Berne, Switzerland
  - Tel: +41 33 388.56.63
  - Düsseldorf, Germany
  - Tel: +49 211.76.64.62.96
  - Lainate, Italy
  - Tel: +39 02.922.714

- **Middle East & India**
  - Dubai, United Arab Emirates
  - Tel: +971.4.378.7730
  - Bangalore, India
  - Tel: +91.80.6703.2203

- **Asia**
  - Shanghai, P.R. China
  - Tel: +86.21.2495.8483
  - Singapore
  - Tel: +65.972.9471
  - Seoul, Korea
  - Tel: +82.2.912.7735
  - Qingdao
  - Tel: +86.532.877.6597

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**Non-Metallic Enclosures**

- **CADDY**
- **ERICO**
- **HOFFMAN**
- **RAYCHEM**
- **SCHROFF**
- **TRACER**
## Non-Metallic Enclosures

**Lightweight construction, high performance and job site modification flexibility**

### Description
- **Solid or window N/A Solid or window Solid or window Solid or window Solid or window**
- **(Note: Window Size Range)**

### Key Features
- Overlapping cover with latches
- Non-metallic hinges and durable
- Environment protection panel

### Accessories & Modifications
- **Tapped holes**
- **Colors**
- **Holes and cutouts**
- **Thermal accessories**
- **Mounting brackets**
- **Thermal accessories**
- **Brass insert kit**
- **DIN rails**

### Material
- **POLYESTER**
- **FIBREGLASS**
- **POLYCARBONATE**
- **ABS**

### FOR MORE INFORMATION, VISIT OUR WEBSITE.

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<tbody>
<tr>
<td>POLYESTER</td>
<td>Description</td>
</tr>
<tr>
<td>FIBREGLASS</td>
<td>Description</td>
</tr>
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<tr>
<td>ABS</td>
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<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless Steel</td>
<td>Description</td>
</tr>
<tr>
<td>Bronze</td>
<td>Description</td>
</tr>
</tbody>
</table>

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<tbody>
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<td>Polyurethane</td>
<td>Description</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>Description</td>
</tr>
<tr>
<td>Polyvinyl chloride</td>
<td>Description</td>
</tr>
</tbody>
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<tbody>
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<td>Description</td>
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<tr>
<td>Steel</td>
<td>Description</td>
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