# Suitability of Various Alloy Materials of Construction (Metals) for Handling Sodium Hydroxide Service

<table>
<thead>
<tr>
<th>Metals</th>
<th>Suitability</th>
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| Stainless Steel 304          | A to 100% to 125° F  
                          | A to 100% to 250° F  
                          | A to 80% to 175° F  
                          | B/NR 70-90% to 180-300° F  
                          | A to 60% to 212° F  
                          | AB 40-70% 212-250° F  
                          | A to 30% to 250° F  |
| Stainless Steel 316 & 317    | AB 70-100% to 125° F  
                          | B 100% at 347° F  
                          | NR 25-100% boiling 160-212° F  
                          | AB 20-70% to 212° F  
                          | A to 20% to 248° F  |
| Stainless Steel Carpenter 20Cb-3 | NR 100% at 210° F  
                          | B 100% at 300° F  
                          | A to 100% to 125° F  
                          | A to 80% to 70° F  
                          | B/NR 60-80% 160-400° F  
                          | AB 40-50% to 330° F  
                          | A to 40% to 212° F  
                          | B to 40% 300-330° F  |
| Hastelloy B                   | A to 100% to 200° F  
                          | NR 80-100% at 300° F, stress cracks  
                          | A 50-70% to 300° F  
                          | AB 50-70% 300-380° F  
                          | A 16-50% to 300° F  
                          | AB to 15% 230-300° F  |

A <.002 in. per year (<.05 mm/yr.)
B <.020 in. per year (<.50 mm/yr.)
C <.050 in. per year (<1.27 mm/yr.)
NR >.050 in. per year or explosive (not recommended)
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<tr>
<td>Hastelloy C/Hastelloy C-276</td>
<td>A to 100% to 70° F&lt;br&gt;A 100% to 200° F&lt;br&gt;AB 50-80% to 170° F&lt;br&gt;BC 50-80% at 175° F&lt;br&gt;AB 5-80% 200° F to boiling&lt;br&gt;A to 50% to 200° F&lt;br&gt;B 10-20% at 225° F&lt;br&gt;C 15% at 230° F&lt;br&gt;A to 5% to 217° F</td>
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<tr>
<td>Nickel</td>
<td>A to 100% to 300° F&lt;br&gt;A to 80% to boiling</td>
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<tr>
<td>Monel</td>
<td>AB 100% to 70° F&lt;br&gt;A to 80% to 300° F&lt;br&gt;AB 40-60% 300-330° F&lt;br&gt;A to 20% to 330° F&lt;br&gt;stress cracks 75-100% &gt;250° F</td>
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</tbody>
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A <.002 in. per year (<.05 mm/yr.)<br>B <.020 in. per year (<.50 mm/yr.)<br>C <.050 in. per year (<1.27 mm/yr.)<br>NR >.050 in. per year or explosive (not recommended)