**Industrial Fiberglass Specialties, Inc.**
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# Suitability of Various Alloy Materials of Construction (Metals) for Handling Sodium Hydroxide Service

| Metals | Suitability |
|---|---|
| Stainless Steel 304 | A to 100% to 125° F<br>A to 100% to 250° F<br>A to 80% to 175° F<br>B/NR 70-90% to 180-300° F<br>A to 60% to 212° F<br>AB 40-70% 212-250° F<br>A to 30% to 250° F |
| Stainless Steel 316 & 317 | AB 70-100% to 125° F<br>B 100% at 347° F<br>NR 25-100% boiling 160-212° F<br>AB 20-70% to 212° F<br>A to 20% to 248° F |
| Stainless Steel Carpenter 20Cb-3 | NR 100% at 210° F<br>B 100% at 300° F<br>A to 100% to 125° F<br>A to 80% to 70° F<br>B/NR 60-80% 160-400° F<br>AB 40-50% to 330° F<br>A to 40% to 212° F<br>B to 40% 300-330° F |
| Hastelloy B | A to 100% to 200° F<br>NR 80-100% at 300° F, stress cracks<br>A 50-70% to 300° F<br>AB 50-70% 300-380° F<br>A 16-50% to 300° F<br>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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# Suitability of Various Alloy Materials of Construction (Metals) for Handling Sodium Hydroxide Service

| Metals | Suitability |
|---|---|
| Hastelloy C/Hastelloy C-276 | A to 100% to 70° F<br>A 100% to 200° F<br>AB 50-80% to 170° F<br>BC 50-80% at 175° F<br>AB 5-80% 200° F to boiling<br>A to 50% to 200° F<br>B 10-20% at 225° F<br>C 15% at 230° F<br>A to 5% to 217° F |
| Nickel | A to 100% to 300° F<br>A to 80% to boiling |
| Monel | AB 100% to 70° F<br>A to 80% to 300° F<br>AB 40-60% 300-330° F<br>A to 20% to 330° F<br>stress cracks 75-100% >250° 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)