

HASTELLOY® B-3® Alloy

Sulfuric Acid

| Conc. | 75°F | 100°F | 125°F | 150°F | 175°F | 200°F | 225°F | 250°F | 275°F | 300°F | 350°F | Boiling |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| Wt.% | 24°C | 38°C | 52°C | 66°C | 79°C | 93°C | 107°C | 121°C | 135°C | 149°C | 177°C | |
| 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| 2 | - | 0.07 | 0.09 | 0.13 | 0.11 | 0.1 | - | - | - | - | - | 0.01 |
| 3 | - | - | - | - | - | - | - | - | - | - | - | - |
| 4 | - | - | - | - | - | - | - | - | - | - | - | - |
| 5 | - | 0.07 | 0.08 | 0.15 | 0.13 | 0.11 | - | - | - | - | - | 0.01 |
| 10 | - | 0.04 | 0.08 | 0.11 | 0.11 | 0.11 | - | - | - | - | - | 0.01 |
| 20 | - | 0.03 | - | 0.08 | - | 0.11 | - | - | - | - | - | 0.02 |
| 30 | - | 0.02 | - | 0.06 | - | 0.09 | - | - | - | - | - | 0.02 |
| 40 | - | - | - | 0.03 | - | 0.06 | - | - | - | - | - | 0.02 |
| 50 | - | - | - | 0.03 | - | 0.04 | - | - | - | - | - | 0.03 |
| 60 | - | - | - | 0.02 | - | 0.03 | - | - | - | - | - | 0.05 |
| 70 | - | - | - | - | - | 0.01 | - | 0.03 | - | 0.11 | - | 0.15 |
| 80 | - | - | - | - | - | 0.01 | - | 0.03 | - | 0.08 | 0.44 | 4.76 |
| 90 | - | - | - | - | - | 0.02 | - | 0.05 | 0.11 | 0.14 | 0.76 | - |
| 96 | - | - | - | - | - | 0.02 | - | 0.09 | 0.22 | 0.35 | 2.59 | - |

All corrosion rates are in millimeters per year (mm/y); to convert to mils (thousandths of an inch) per year, divide by 0.0254.

Data are from Corrosion Laboratory Jobs 37-92, 29-94, 47-94, 42-95, and 14-96.

All tests were performed in reagent grade acids under laboratory conditions; field tests are encouraged prior to industrial use.

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Iso-Corrosion Diagram for B-3 Alloy in Sulfuric Acid

