

HAYNES[®] 625 alloy

Tensile Properties

Cold-Rolled and 1925°F (1050°C) Mill-Annealed, Sheet

| Test Temperature | | 0.2% Yield Strength | | Ultimate Tensile Strength | | Elongation |
|------------------|------|---------------------|-----|---------------------------|-----|------------|
| °F | °C | ksi | MPa | ksi | MPa | % |
| RT | RT | 71.2 | 491 | 133.9 | 923 | 47.5 |
| 1000 | 540 | 56.3 | 388 | 118.4 | 816 | 54.2 |
| 1200 | 650 | 55.1 | 380 | 117.7 | 811 | 109.3 |
| 1400 | 760 | 53.8 | 371 | 71.0 | 490 | 135.0 |
| 1600 | 870 | 29.6 | 204 | 34.7 | 239 | 160.6 |
| 1800 | 980 | 9.9 | 68 | 15.3 | 106 | 154.5 |
| 2000 | 1095 | 5.0 | 35 | 8.7 | 60 | 128.3 |

Hot-Rolled and 1925°F (1050°C) Mill-Annealed, Plate

| Test Temperature | | 0.2% Yield Strength | | Ultimate Tensile Strength | | Elongation |
|------------------|------|---------------------|-----|---------------------------|-----|------------|
| °F | °C | ksi | MPa | ksi | MPa | % |
| RT | RT | 60.5 | 417 | 129.6 | 894 | 48 |
| 800* | 425* | 46.4 | 320 | 116.1 | 800 | 51.5 |
| 1000 | 540 | 44.8 | 309 | 112.3 | 774 | 52.1 |
| 1200 | 650 | 43.7 | 301 | 112.7 | 777 | 80.3 |
| 1400 | 760 | 43.7 | 301 | 71.1 | 490 | 102.2 |
| 1600 | 870 | 30.6 | 211 | 38.0 | 262 | 115.7 |
| 1800 | 980 | 11.8 | 81 | 17.3 | 119 | 120.7 |
| 2000 | 1095 | 5.4 | 37 | 9.3 | 64 | 135.1 |

*Average of results for only two products

RT=Room Temperature

Comparative Elevated Temperature Yield Strengths, Sheet



