

Invar 36 has a low coefficient of expansion from cryogenic temperatures to about 260°C. It also retains good strength and toughness at cryogenic temperatures. Invar 36 is used to making aerospace composites, standards of length, measuring devices, thermostat rods, laser components, clock pendulums and tanks and piping for the storage and transportation of liquefied gases.

Invar 36 Specification

| Grade | UNS | W.Nr |
|----------|--------|--------|
| Invar 36 | K93600 | 1.3912 |

Invar 36 Chemical composition

| Grade | % | Ni | Fe | C | Mn | Si | P | S |
|----------|-----|----|------|------|-----|-----|------|------|
| Invar 36 | Min | 35 | Bal. | | 0.2 | | | |
| | Max | 37 | | 0.05 | 0.6 | 0.3 | 0.02 | 0.02 |

Invar 36 Mechanical properties: (Minimum value at 20°C)

| Tensile Strength σ_b /MPa | Yield Strength $\sigma_{p0.2}$ /MPa | Elongation σ_5 /% |
|-------------------------------------|--|-----------------------------|
| ≥490 | ≥240 | ≥42 |

Invar 36 Size Range

- Wire: Dia 0.08-12mm
- Bar: Dia1.0-300mm
- Strip(Coil): 0.2-20mm TCK x 10-300mm W
- Sheet: min.0.7mm TCK x 1200mm W max.
- Tube & Forging & Machine Parts: customized
- Welding wire: 0.8mm,1.0mm,1.2mm,2.0mm,2.4mm,3.2mm,3.8mm,4.0mm etc
- Welding Strip: 0.4-0.7mm TCK x 25-60mm W