

AMS 6512 - MARAGING 250 STEEL

Maraging 250 is an 18% nickel, cobalt strengthened steel. It is a very high strength material reaching 1800 MPa after heat treatment, has very good toughness with excellent transverse properties. It is produced by Vacuum Induction Melting (VIM) followed by Vacuum Arc Remelting (VAR).

| Specific Gravity | | | | | | | | | | | | | | | | |
|--|------|------|------|-------|------|-------|-------|--|---------------------|------|------------|----------------------|---------|------|------|-----|
| 8.02 g/cm ³ | | | | | | | | | | | | | | | | |
| Typical Applications | | | | | | | | Related Specifications | | | | | | | | |
| Driveshafts Gears Fasteners Landing and Takeoff gear Missile and ejector systems | | | | | | | | AMS 6512 BS S162 DTD 5212 G110 Mil-S-46850D W.Nr 1.6359 | | | | | | | | |
| Chemical Composition (Wt %) | | | | | | | | | | | | | | | | |
| | C | Si | Mn | P | S | Al | B | Ca | Co | Cr | Mo | Ni | Ti | Zr | Cu | Fe |
| Min | – | – | – | – | – | 0.05 | – | – | 7.0 | – | 4.6 | 17.0 | 0.30 | – | – | Bal |
| Max | 0.03 | 0.10 | 0.10 | 0.010 | 0.15 | 0.005 | 0.005 | 0.05 | 8.5 | 0.5 | 5.2 | 19.00 | 0.50 | 0.02 | 0.05 | – |
| Typical Mechanical Properties after heat treatment | | | | | | | | | | | | | | | | |
| | | | | | | | | 0.2% Proof Stress | Tensile Strength | | Elongation | Reduction of area | Impacts | | | |
| | | | | | | | | MPA | MPA | | % | % | (Izod) | | | |
| | | | | | | | | Min | Min | Max | Min | Mon | ft lbf | | | |
| Longitudinal | | | | | | | | 1700 | 1800 | 2000 | 8 | 40 | 18 | | | |
| Transverse | | | | | | | | 1700 | 1800 | 2000 | 5 | 25 | 8 | | | |
| Hardness after Heat Treatment | | | | | | | | | | | | | | | | |
| 520-620 HV | | | | | | | | | | | | | | | | |

* This data has been supplied in good faith and is indicative only. It has been provided for general information purposes only and is not to be relied upon in place of the full specification. Mechanical properties can vary considerably with different supply conditions such as heat treatment or temper and product dimensions.

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