

HEAT TREATABLE STEELS AND PRECIPITATION HARDENING STEELS

Available Product Variants

Plates

Product Description

Highly stressed components for the aircraft and rocket industries. Constructional and tool steel for hot and cold working tools used for long-time service at temperatures up to approx. 450°C. Machine tools, Pressure vessels, Gearwheels (nitrided), Screws, Precision parts, Tools for hydrostatic presses, Cold extrusion tools, Cold heading and embossing tools, Plastic moulds, Die casting tools for aluminium and zinc alloys, Hot pressing tools.

Properties

Ultra-high-strength maraging steel. In contrast to heat treatable steels its outstanding tensile properties are not due to a hardened structure with relatively high carbon content, but to precipitation of intermetallic phases from a ductile nickel bearing matrix containing almost no carbon.

This results in the following advantages:

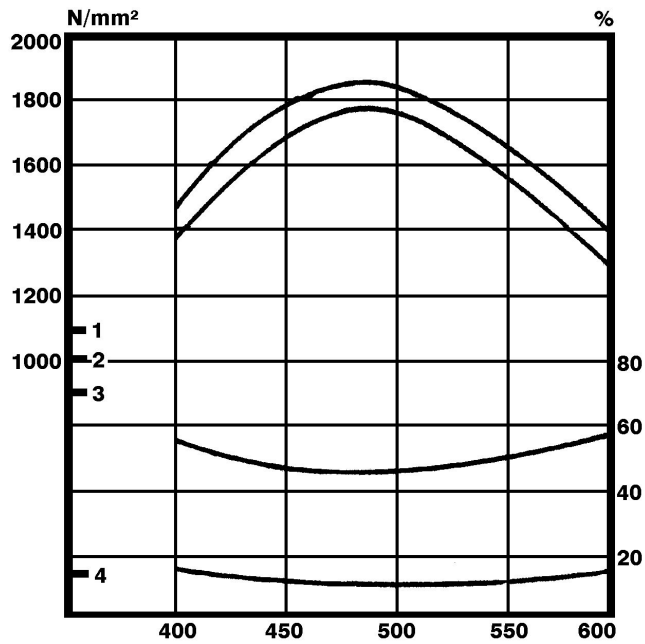
- High tensile strength and excellent yield point ratio
- Satisfactory toughness (reduction of area, elongation, impact strength, fracture toughness) even at low temperatures
- Superior notched tensile strength and heat
- Checking resistance
- Practically no size change in heat treatment
- No decarburization and no cracking
- Full hardening even in sizes above average
- Convenient machinability in the solution annealed condition
- Machining is also possible in the precipitation-hardened condition)
- Good cold forming properties owing to reduced susceptibility to work hardening
- Eminent weldability, simple heat treatment at low temperatures

Applications

> Structural parts (Aerosp)

Technical data

Material designation		Standards	
1.6359	SEL	6520	AMS
Maraging 250	Market grade		



Auslagerungstemperatur (Haltedauer 3 Stunden) in °C
Ageing temperature (holding time 3 hours) in °C

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.