

Steel alloys



Category:

Ultra high wear resistance
Increased modulus
Lower density
High damping capacity

Steel alloy WTEC6

Steel alloy WTEC6 is made via an advanced semi powder process. Due to this manufacturing process the Steel is very homogenous and super clean. Steel WTEC6 has a very high wear resistance. Due to the high amount of Carbides the elastic modulus is increased and the density is lower compared to other Steel alloys. Because of the very fine microstructure and homogenous Carbide distribution WTEC6 shows high fatigue strength.

General properties

- Ultra high wear resistance
- Higher modulus
- Lower density

Comparison with Standard Steel M50

- Advantages:**
- Higher modulus
 - Lower density
 - Better wear resistance
- Disadvantages:**
- More expensive

Chemical Composition: Fe-Cr-Mo-C

Mechanical properties

Alloy	Temperature	UTS	YS	Elong.	Modulus	Hardness
		MPa	MPa	%	GPa	HRC
Steel-WTEC6	Rt	1760	1540	1	224	60-67

Fatigue resistance: >1120 MPa, rotating bending, 200°C

Physical data

Density: 7.36 g/cm³
CTE: 11x10⁻⁶
Thermal conductivity: 21 W/mK

Applications

- Piston pins
- Gear selector shafts
- Camshafts
- Gears
- Crankshafts
- Transmission shafts
- Shims

Delivery form

- Bars, plates

Max. size, 220 mm diameter x 4.000mm length.