



YOUR NEW DIMENSION OF POSSIBILITIES

Material Data Sheet: Material 1.2709 (Maraging Steel)

Utilization:

Mould and die casting, Prototypes, Serial parts, Springs, etc.

Material Properties:

Martensite hardening steel, low warping, very good toughness properties, high extension limit and tensile strength. Uniform contraction (0,09%)

Physical Properties:

Thermal conductivity: hardened approx. 20 W/mK

Coefficient of thermal expansion: $10,3 \times 10^{-6}$ m/mK at 20°C to 100°C

Tensile strength: ≥ 1100 N/mm² (directly after the additive process)

max. ≥ 2050 N/mm² (heat treated at 510 °C)

Yield point Rp 0,2: ≥ 2000 N/mm² (heat treated at 510 °C)

Elongating at fracture: $\geq 11\%$ (directly after the additive process) $\geq 4\%$ (heat treated at 510 °C)

Hardness: ≥ 35 HRC (directly after the additive process) ≥ 52 HRC (heat treated at 510 °C)

Special Properties using additive manufacturing:

Surface roughness: depending to the used layer thickness min. Rz 40-60 μ m (without finishing)

Density: in average 99,9 % (8,1 kg/dm³)

Minimum wall thickness: $\geq 0,5$ mm (depending to the geometry)

Part accuracy: max. $\pm 0,05$ mm (depending to the geometry)

3DSTEP Oy

Huurretie 9

FI 33470 Ylöjärvi

+35841 430 2654

info@3dstep.fi

3dstep.fi

Y-tunnus: 2756343-6

Alv. rek.