

Material specification sheet

Saarstahl - 34CrNiMo6

Material No.:	Former brand name:	International steel grades:
1.6582	Monix 15	BS: 817M40, 816M40 AFNOR: 34CrNiMo8, 35NCD6 SAE: 4337

Material group: Steel for quenching and tempering according to DIN EN 10083

Chemical composition: (Typical analysis in %)	C	Si	Mn	Cr	Mo	Ni	other
	0,34	0,25	0,50	1,50	0,25	1,55	(Pb)

Application: Heat treatable steel for high strained automotive and motor construction components with a typical tensile strength range of 1000 - 1300 N/mm².

Hot forming and heat treatment:	Forging or hot rolling:	1100 - 850°C
	Normalising:	850 - 880°C/air
	Soft annealing:	650 - 680°C/furnace
	Hardening:	830 - 860°C/oil
	Tempering:	540 - 660°C/air

Mechanical Properties: Treated for cold shearability +S: See condition A
Soft annealed +A: max. 248 HB

Quenched and tempered, +QT:

Diameter d [mm]	< 16	>16 – 40	>40 – 100	>100 – 160	>160 – 250
Thickness t [mm]	< 8	8<t<20	20<t<60	60<t<100	100<t<160
0,2% proof stress R _{p0,2} [N/mm ²]	min. 1000	min. 900	min. 800	min. 700	min. 600
Tensile strength R _m [N/mm ²]	1200 - 1400	1100 - 1300	1000 - 1200	900 - 1100	800 - 950
Fracture elongation A ₅ [%]	min. 9	min. 10	min. 11	min. 12	min. 13
Reduction of area Z [%]	min. 40	min. 45	min. 50	min. 55	min. 55
Notch impact energy ISO-V [J]	min. 35	min. 45	min. 45	min. 45	min. 45