

1.5415

16Mo3

Designation (DIN 17 006)
 Similar AISI materials (UNS)
 As-delivered condition
 Microstructure (as deliv. cond.)

16Mo3

(* F=Ferrite Ce=Cementite Ca=Carbides A=Austenite)

Chemical Composition

C%	Si%	Mn	P%	S%
0,12-0,20	≤ 0,35	0,40-0,90	0,030	0,025
Cr%	Mo%	Ni%	V%	Others%
≤ 0,30	0,25-0,35	≤ 0,30	-	Cu ≤ 0,30; +Al

Mechanical properties at room temperature

Hardness Brinell HB30	Yield stress ≥ N/mm ²	Tensile strength N/mm ²	Elongaion (L ₀ =5d ₀) ≥ %	Impact value ISO-V (DVM) ≥ J
130-170	260	440-590	24	40

Heat treatment

Hot working °C	Soft annealing °C	°C	Hardening		Temper °C
			Oil	Air	
1100-850	890-950 ¹⁾ 530-620 ²⁾	910-940 ⁶⁾	•	-	660-710

¹⁾ Normalizing

²⁾ Stress relieving

³⁾ Values for longitudinal samples bars ≤ 60 mm ∅

⁴⁾ Normalized and tempered

⁵⁾ ∅ ≤ 100mm

⁶⁾ Austenize

Mechanical and physical properties above ambient temperature

0,2% Yield stress ≥ N/mm ²					
200°C	300°C	350°C	400°C	450°C	500°C
215	170	160	150	145	140

Hours	Creep limit N/mm ² at °C			
	450°C	500°C	550°C	600°C
1.000 h	-	-	-	-
10.000 h	216	132	-	-
100.000 h	167	73	-	-

Hours	Creep rupture strength N/mm ² at °C			
	450°C	500°C	550°C	600°C
10.000 h	298	171	71	-
100.000 h	239	101	31	-