

Wr.Nr.	PN	EN	GOST	AISI
1.2311	-	40CrMnMo7	-	P20

CHEMICAL COMPOSITION

Chemical composition (in weight %)

Element	C	Si	Mn	P	S	Cr	Mo
min	0.35	0.20	1.30	max.	max.	1.80	0.15
max	0.45	0.40	1.60	0.035	0.035	2.10	0.25

APPLICATION

Large and medium-sized moulds for plastic processing, mould frames for the injection moulding and die casting industries, components for general mechanical engineering. Mold bodies and mold inserts for high gloss plastics and pressure mold.

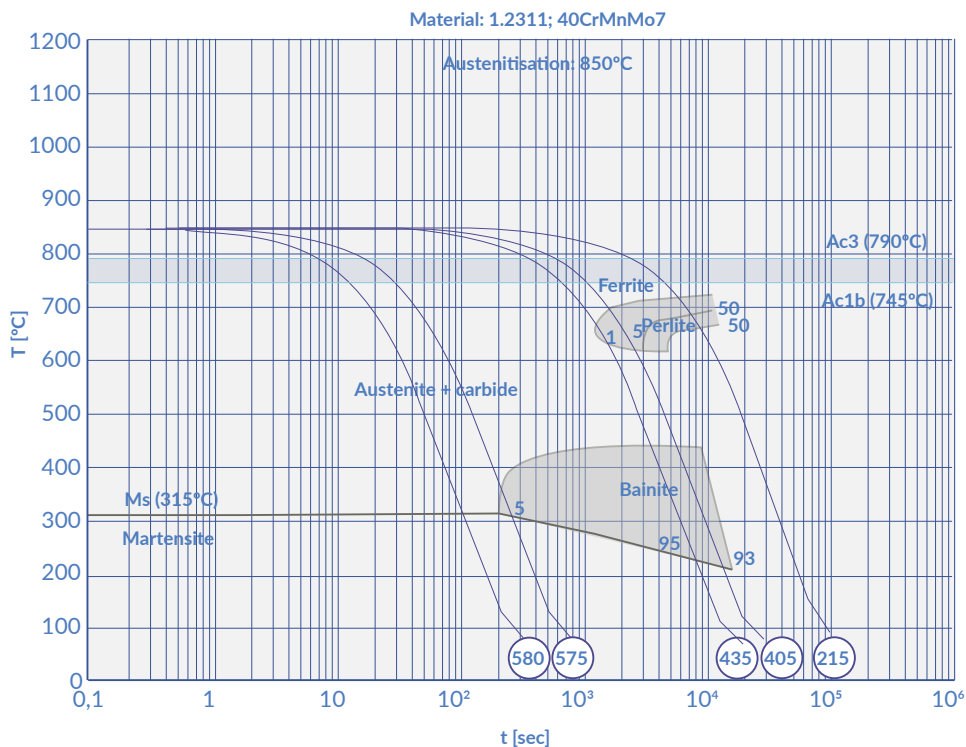
TREATMENT

Soft annealing	710 - 740°C / slow controlled cooling in furnace at a rate of 10 to 20°C/h down to approx. 600°C, further cooling in air						
Stress relieving	650 - 680°C / in hardened and tempered condition below the last tempering temperature						
Preheating	350°C / depending on dimension						
Hardening	840 - 870°C / air, oil, warm bath 180-220°C						
Tempering [°C]:	100	200	300	400	500	600	700
Tempering [HRC]:	51	50	48	46	42	36	28

MECHANICAL PROPERTIES

Condition	Quenched and tempered (Q+T) at approx. 1000 MPa (approx. 300 HB)
Hardness [HB]	max. 235

CONTINUOUS COOLING TRANSFORMATION (CCT) DIAGRAM



NOTE: All technical information is for reference only.