

Plastic Mould Steels

Product Specifications

MATERIAL					CHEMISTRY								HEAT TREATMENT DETAILS						
AISI / ASTM	DIN	EN	AFNOR	JIS	C	Si	Mn	Cr	Mo	V	Ni	Othrs	Annealing temperature	Quenchant (Hot bath)	Hardening temperature	Tempering (Air Cooling)	Annealed (HB-max)	Quenched & (HB) Tempered	Supply condition
P20	1.2311	40CrMnMo7	--	--	0.40	0.30	1.50	1.90	0.20	--	--	S=0.002	720-740 • c	Oil	840-860 • c	600-650 • c	230	300	H & T 285-325 BHN
P20+Ni	1.2738	40CrMnNiMo8-6-4	--	--	0.38	0.30	1.50	1.90	0.20	--	1.00	S=0.002	720-740 • c	Oil	840-860 • c	600-650 • c	230	300	H & T 285-325 BHN
P20+S	1.2312	40CrMnMoS8-6	--	--	0.40	0.35	1.50	1.90	0.20	--	--	S=0.07	710-740 • c	Oil	840-860 • c	600-650 • c	230	300	H & T 285-325 BHN
SS420	1.2083	X42Cr13	~Z40C14	~SUS420J2	0.40	0.70	0.45	14.0	--	0.20	--	S=0.002	840-870 • c	Oil / Air / Salt bath	1000-1050 • c	100-250 • c	200	53 Hrc	Annealed
SS420mod	1.2316	X38CrMo16	--	--	0.38	0.40	0.65	16.0	1.00	--	0.80	S=0.002	800-850 • c	Oil	1000-1050 • c	600-700 • c	230	300	H & T 285-325 BHN

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Application

AISI / ASTM	DIN	Supply condition	APPLICATION
P20	1.2311	Hardened & Tempered	Moulds for plastics processing, mould frames for the injection moulding and die casting industries, components for mechanical engineering. Supplied in the hardened and tempered condition, requiring no further heat treatment. Good machinability, polishability and photo etchability combined in one steel.
P20+Ni	1.2738	Hardened & Tempered	Large and medium size moulds for plastics processing, mould frames for the injection moulding and die casting industries, components for mechanical engineering. Supplied in the hardened and tempered condition, requiring no further heat treatment. Good machinability, polishability and photo etchability combined in one steel and uniform hardness.
P20+S	1.2312	Hardened & Tempered	Moulds for plastics processing, mould frames for the injection moulding and die casting industries, components for mechanical engineering. Supplied in the hardened and tempered condition, requiring no further heat treatment. Good machinability.
SS420	1.2083	Annealed	Moulds for processing plastics with corrosive action and plastics (e.g. PVC) containing abrasive fillers. Excellent Corrosion-resistant, Excellent polishability.
SS420mod	1.2316	Hardened & Tempered	Moulds for processing plastics with corrosive action (e.g. PVC). Increased corrosion resistance in comparison with this steel is usually supplied in quenched and tempered condition with a working hardness of approx. 300 HB.