

Plastic Mould Steels

Product Specifications

	MATERIAL				CHEMISTRY						HEAT TREATMENT DETAILS						
AISI/ ASTM	EN	DIN	JIS	C	Si	Mn	S	Cr	Mo	Ni	Annealing (Slow Cooling)	Quenchant (Hot Bath)	Quenching	Tempering (Air Cooling)	Annealed (HB)-max	Quenched & (Hrc) tempered	Supply Condition
P20	40CrMnMo7	1.2311		0.4	0.3	1.5	0.002	1.9	0.2		720-750	OIL/AIR	850-880	600-680	240	300	H & T 280-320BHN
P20+Ni	40CrMnNiMo864	1.2738		0.4	0.3	1.5	0.002	2	0.2	1.1	720-740	OIL/AIR	850-880	710-740	240	300	H & T 280-320BHN
P29+S	40CrMnMoS86	1.2312		0.4	0.3	1.5	0.07	1.9	0.2		740-760	OIL/AIR	840-870	600-680	240	300	H & T 280-320BHN
	36CrMo17	1.2316	SUS420J	0.36	0.4	0.65	0.002	16	1.2	1	780-820	OIL	1000-1040	600-700	235	300	H & T 280-320BHN
420	42Cr13	1.2083	SUS420F	0.42	0.4	0.45	0.002	14	0.6		840-870	OIL	1000-1050	250-570	200	53HRC	ANNEALED

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Size Range

PLASTIC MOULD	AISI	DIN	Supply condition	Rounds	Square	Flat	Application
	P20	1.2311	Hardened & Tempered	75 ÷ 300		200x40 ÷ 1000x600	Steels suitable for dies up to 400 mm about of thickness, with very good polishing and photoincisivening qualities. It can be nitrided.
	P20+Ni	1.2738	Hardened & Tempered	75 ÷ 300		200x40 ÷ 1000x600	This plastic mould steel has been developed from the standard grade 2311 . It is best suited for mould dimensions from 400 mm thick. Adding 1% nickel by alloying ensures full quenching and tempering up to 1,000 mm thickness. This good machinability combined with polishability and etch-granability are defining characteristics of this standard steel.
	P20+S	1.2312	Hardened & Tempered	75 ÷ 300		200x40 ÷ 1000x600	In comparison with 2311 , it offers a better workability, applications are the same but with smaller polishing requirements.
	420mod	1.2316	Hardened & Tempered	50 ÷ 160		200x40 ÷ 1000x250	Well suitable for processing chemically aggressive and acid releasing plastic such as PVC. Amino plastic and halogenated flame retardant additives. Application injection moulds, mould inserts slit dies, profile dies, extrusion dies, drop forging tools and coaxial housing for PVC amino plastic and additives, blow moulds.
	420	1.2083	Annealed			300x60 ÷ 500x250	Moulds for processing plastics with corrosive action, very high polishability.