



梧濟工業股份有限公司 WUJII INDUSTRY CO., LTD.

Mold steel of Buderus | Edelstahl from Germany

	Grade	Standard	HRC	Application and properties
Pre-hardened Plastic mold steel	SPM-1	S55C Modified	11-15	Mold with large size Suitable to process commonly used plastic(ABS、PP、PU)
	2311	P20	28-31	Suitable for mass production mold, good polishability, good for electrical discharge texturing
	2738/ 2738E	1.2738 P20 MOD+ Ni	28-33	Suitable for mold with large size, homogeneous hardness throughout whole block, great effect for electrical discharge texturing
	BPM-HHH	1. 2738 Modified and hardened BPM-HH hardened	38-40	Good machinability, weldability, polishability, good for electrical discharge texturing. Relatively high strength thus good tool life. Thermal conductivity 30% better than 2738. Very suitable for bumper or chair molds thicker than 400mm.
	2711	MR-11	38-42	High temperature resistance, toughness, hardness. Easy polishing and nitriding, excellent electrical discharge texturing. Suitable for wear-resistant slider mold core. Wear resistance 40% better than P20.
	TS-Diamond	BPM-HHH ESR	38-42	Plastic injection and extrusion moulds with high polishing requirements, such as car lights, mirror-polished plastic parts and fine grained surface
Stainless steel	2083-31	Stainless steel	29-33	Suitable for mold base, good machinability
	2316 MOD	2316 Modified Stainless steel	27-33	High corrosion resistance, if processing PVC then needs chromium plating to further increase corrosion resistance. Carbon content lower than standard 1.2316, so better in polishability.
	2316 MOD-36	Stainless steel	34-38	
	WP85	Free cutting stainless steel for mold base	36-40	Good machinability, high-strength, high-hardness mold base material.
Cold work steel	2767		50-54	Can be used to process thermosetting plastic, thermoplastic, and fiber reinforced plastic.
Pre-hardened hot work steel	2714	SKT-4	40-44	Forging die, press die forging, extrusion tool parts.
	2714 MOD	2714 Modified	40-44	Higher alloy than 2714, suitable for mass production
	Hiperdie	Patented grade	42-45	For mass production of hot forging mold. Excellent toughness and high temperature strength.
	2347	FDAC/ TDAC	38-42	Zinc alloy die casting mold. Fast cutting, high heat checking resistance.
hot work steel	2343/ 2343MOD	H11/ H11 modifide	46-50	Aluminum extrusion container, Die casting tools in the processing of light metals and zinc alloys. Tools in forging machine.
	2344	H13/ SKD-61	50-52	Aluminum extrusion dies. Die casting tools in the processing of light metals and zinc alloys. Tools in forging machine.

MOD = Modified grade

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Mold Steel of BÖHLER from Austria

	Grade	Standard	HRC	Application and properties
Plastic mold steel	M201	P20	29-33	Pre-hardened. Suitable for mass production, relatively good polishability, good for electrical discharge texturing
	M461	Similar to NAK80	36-40	Pre-hardened. Relatively better wear resistance, suitable for nitriding, electrical discharge texturing, and very good polishability
	M315	Stainless steel for Mold base	31-35	Pre-hardened mold base material. Suitable for optical grade stainless steel mold system. Aging deformation resistant.
	M303 ESR	Same level as STAVAX	45-50	Nitrogen added steel. Good stress corrosion resistant. Very well polishability. Suitable to process up to 10% GF.
	M333 PESR	Optical level stainless steel	45-50	Nitrogen added steel. Very good corrosion resistance. Optical lenses mold base, and core, light guide panel. Optimum polishability for mirror finish.
	M340 PESR	Optical level stainless steel	52-58	Nitrogen added steel. Optical lenses mold core insert and dowel pin. Great wear and corrosion resistance. Suitable to process up to 60% GF.
	M368 PM	Powder metallurgy stainless steel (M340 powder)	52-58	Nitrogen added steel. Optical lenses mold core insert and dowel pin. Outstanding wear resistance and toughness. High dimensional stability and corrosion resistance. Suitable to process up to 60% GF.
	M390 PM	Powder metallurgy mirror finish stainless steel	55-60	High dimensional stability, high wear resistance, high corrosion resistance, low residual processing stress. Suitable to process up to 65% GF.
Cold Work steel	K110	Similar to SKD-11/ D2/ SLD	58-62	High-performance cutting tools, woodworking tools, thread rolling die, rollers, blanking dies and punch tools.
	K340	Similar to DC-53	52-63	Cutting tools, blanking die. Cold forming and deep drawing die. Suitable for processing stainless steel. High toughness thread rolling die.
Ultra-fine powder steel and high-speed steel	S600	SKT-51 (M2)	60-64	Screw, twist drill, reamer, broach, saw blade for metal cutting, All kinds of milling tools, woodworking tools, cold work tools.
	S290 PM	Patented	66-70	High yield strength, high wear resistance, high fatigue resistance, property is between powder high speed steel and tungsten alloy. Suitable high speed stamping die, screw tap, twist drill.
	S390 PM Avg. grain size 60μ	ASP-60 T-15	65-69	High yield strength, high wear resistance, high fatigue resistance, property is between powder high speed steel and tungsten alloy. Suitable high speed stamping die, screw tap, twist drill.
	S693 PM Avg. grain size 60μ	ASP-23 CPM-M4	64-66	High toughness, high wear resistance, high fatigue resistance Precision blanking die; for powerful cutting tools of non-metallic alloy (i.e. Al, Ti), high-speed stamping/ blanking, cold forging punch.
Hot Work steel	W302 ESR	H13 Modified	44-50	High purity, high alloy homogeneous, used in high EDM, or etching requirements. Good ductility. Suitable to process up to 20% GF.
	W350 ESR	Patented	46-52	High thermal conductivity. Suitable for large die-casting molds and mold inserts, hot cutting blades.
	W360 ESR	Patented	52-57	Great balance between high wear resistance and high toughness. Good thermal wear resistance. Suitable to process up to 20% GF.
	W403 VMR	H13 VAR	46-52	Very high cleanliness, better heat checking resistance, high thermal conductivity, high thermal stability, high thermal wear resistance, high toughness. Hot-worked steel mold insert, the property of die-casting mold insert within 300mm thickness are particularly good

ESR = Electroslag remelting PESR = Pressured/ protected gas ESR VMR = Vacuum arc remelting