

ASSAB Steel																		
IMPAX 718H	P20 Modified	Prehardened to HB 330 - 380	0.38	0.3	2.0	1.0	1.4	0.2	-	-	Pre-hardened type, high purity with isotropic microstructure contains 1.0% Ni	Prehardened Condition						High quality mold inserts, best suitable for plastic molding of PS, PE, PP, ABS
EM38	Special Steel	Prehardened to HB 350 - 410	Patent Pending								Good polishability, texturing, EDMing and machinability. Homogenous hardness	Prehardened Condition						Suitable for plastics injection mold, extrusion die and rubber mold
NIMAX	Special Steel	Prehardened to HB 360 - 400	0.1	-	3.0	1.0	2.5	-	-	-	Good polishing and teturing properties.Superior EDMing property and machiniability. High toughness, Very good weldability	Prehardened Condition						Plastic injection moulds like LCD TV, automobile, packaging. Holder material for forging and die-casting dies. Machine parts
STAVAX S136	420 Mod., ESR	Annealed to HB 250 (approx.)	0.38	0.8	13.6	-	0.5	-	0.3	-	High purity, high polishability to mirror finish, with good corrosion resistance and low distortion after heat treatment	1025	Oil / Air	54	53	-	-	High quality mold inserts with mirror surface finish and good corrosion resistance, anti-corrosive cooling channel, best suitable for plastic molding of PVC, PP, EP,PC, PMMA, machine parts for food processing machinery
STAVAX S136H		Prehardened to HB 290 - 330										Prehardened Condition						
MIRRX S136 SUP	420 Mod., ESR	Annealed to HB 250 Max.	0.24	-	13.3	1.4	0.5	0.35	0.35	-	Corrosion resistance and toughness are better than S136	1020	Air	-	50	49	-	Suitable for big plastic mold with high precision requirement
MIRRX S136H SUP		Prehardened to HB 290 - 330									Corrosion resistance and toughness are better than S136H	Prehardened Condition						
POLMAX	420 Mod. (ESR+VAR), Optical Grade	Annealed to HB 200 (approx.)	0.38	0.9	13.6	-	0.5	-	0.3	-	Ultra-high purity and extremely low segregation by double remelting process (ESR+VAR). Excellent polishability to attain optical requirement. Good corrosion resistance and low distortion after heat treatment	1025	Oil / Air	54	53	-	-	High quality molds for lens, optical products, compact discs and medical applications
CORRAX S336	Special Precipitation Hardening Stainless Steel	Solution treated to 32 HRC (approx.)	0.03	0.3	12.0	9.2	0.3	1.4	-	-	Excellent corrosion resistance, extremely good dimensional stability during ageing, good weldability	Flexible hardness, 32 - 50 HRC, achieved by an ageing treatment in the temperature range 425 - 600°C						Injection molds for corrosive plastics, rubber, medical and food industry and plastic parts with complicated design
ELMAX	Special Powder Metal	Annealed to HB 240 (approx.)	1.7	0.8	18.0	-	0.3	1.0	3.0	-	High wear resistance. High corrosion resistance. High compressive strength. Less distortion after heat treatment	1080	Oil / Air	58	57	57	-	Suitable for plastic molds with the requirement of both high corrosion resistance and wear resistance. Suitable for plastic molds for engineer plastics with additives such as glass fibers and/or fire retardent. molds for electronic encapsulation. Components for food industries
RAMAX 168	Special Stainless Steel	Prehardened to HB 290-360	Please Refer to the Corresponding Catalogue								High machinability. High corrosion resistance	Prehardened Condition						Mold base with the requirement of high strength and corrosion resistance. Plastic molds with corrosion resistance but do not require high surface finish requirement. Suitable for fixtures in electronic industries
ROYALLOY	Special Stainless Steel	Prehardened to HB 290-330	0.05	0.4	12.6	-	1.2	-	-	-	Superior machinability, excellent corrosion resistance, uniform and consistent hardness in all dimensions, excellent weldability	Prehardened Condition						Plastic mould bases with requirement of long run, corrosion resistance and high precision. Suitable for plastic and rubber moulds, machine parts that does not require high surface quality
DIEVAR 8418	Special steel	Annealed to HB 225 (Max)	0.35	0.2	5.0	-	0.75	2.3	0.8	-	Good high tempering strength and high toughness, good high temperature strength, excellent hardenability and good temper resistance	Please refer to corresponding product catalogues for the detail of heat treatment procedures						Al, Mg Diecasting mold, diecasting parts, Al extrusion molds, plastic hard tooling
ORVAR 8407	H13, MICRODIZED + ESR	Annealed to HB 185 (approx.)	0.38	1.0	5.3	-	0.4	1.3	0.9	-	Hot work tool steel with high toughness and good high temperature strength	1020	Oil / Air	-	52	52	52	Die casting, extrusion, cold hobbing, mold for PA, POM,PS, PE, EP plastics
CALMAX 635	High wear resistance multi-functional tool steel	Annealed to HB 200 (approx.)	0.6	0.35	4.5	-	0.8	0.5	0.2	-	Extremely high toughness and high wear resistance, good hardenability and weldability, good flame and induction hardenability to HRC56-60, with harden layer up to 5mm thickness	960	Air	60	58	55	-	High strength plastic mold and compacting die, suitableable for molding of fibre-reinforce plactics
VANADIS 10	High performance powder metallurgical cold work tool steel	Annealed to HB 280 - 310	2.9	1.0	8.0	-	0.5	1.5	9.8	-	Extremely high wear resistance, sufficient toughness with very high compressive strength and high dimensional stability during heat treatment	1020	Air	-	62	62	-	High speed stamping of E.I. core and lead frame



Aubert & Duval													
MEK4	DIN 1.8523	Prehardened to HB 360 - 400	0.4	-	3.0	-	-	1.0	0.2	-	High hardness and toughness. With nitriding process, surface hardness can be attained to 900 HV	Prehardened Condition	Plastics mold with the requirement of high hardness, toughness and wear resistance. Surface hardness can be increased to 800 HV by nitriding
X13T6W (236)	420 Mod., ESR	Annealed to HB 240 (max.)	0.4	-	14.5	-	-	0.3	-	-	High purity and polishability. Wear resistance and corrosion resistance are better than normal AISI 420 stainless steel. Hardness can be obtained up to 50 - 52 HRC with proper heat treatment in order to obtain better polishability, wear resistance and/or corrosion resistance	Please refer to the corresponding product catalog for the details of heat treatment parameters	High quality mold inserts with mirror surface finish and good corrosion resistance, anti-corrosive cooling channel, best suitable for plastic molding of PVC, PP, EP, PC, PMMA, machine parts for food processing machinery
X13T6W (236H)	420 Mod., ESR	Prehardened to HB 290 - 330									High purity and polishability. Wear resistance and corrosion resistance are better than normal AISI 420 stainless steel	Prehardened Condition	
ADC3	H11 Mod. / 1.2343 Mod. (High Purity Process)	Annealed to HB 235 (max.)	0.35	-	5.0	-	-	1.3	0.4	-	strict and tight control on chemical composition and metallurgical grain structure, excellent toughness, excellent resistance to heat checking	Please refer to the corresponding product catalog for the details of heat treatment parameters	Suitable for large AL die casting molds, Mg die casting molds with excellent fatigue life
SMV3W	H11 ESR / 1.2343 ESR	Annealed to HB 235 (max.)	0.4	1.0	5.0	-	0.4	1.3	0.5	-	Strict and tight control on chemical composition and metallurgical grain structure, homogeneous quality and stability, high material cleanliness, compare AISI H13, better toughness, good resistance to heat fatigue.		Suitable for small to medium AL die casting mold, Zn die casting mold; and hard injection molds for PA, POM, PS, PE, EP plastics including glass fibres





DAIDO Steel																										
PX88	P20 Modified	Prehardened to HB 280-310	Patent Pending								Good weldability, special alloying composition to reduce sensitivity due to weld crack	Prehardened Condition						Medium production run plastic mold with good surface finishing								
PX5	P20 Modified	Prehardened to HB 280-310									Good weldability, special alloying composition to reduce sensitivity due to weld crack, good machinability							Medium production run plastic mold								
PAC5000	Special Steel (PX88/PX4 Mod.)	Prehardened to HB 336-362									Homogenous structure and hardness. Polishing up to #5000. Good weldability, special alloying composition to reduce sensitivity due to weld crack							Suitable for plastic molds requiring high hardness without heat treatment								
NAK55	P21 + S Mod., VAR	Prehardened to HB 344-400	0.15	0.3	-	3.0	1.5	0.3	-	-	Pre-hardened type with high hardness, good machinability and weldability							High precision plastic molds and rubber molds								
NAK80	P21 Mod., VAR	Prehardened to HB 344-400	Improved Composition from NAK55								Pre-hardened type with high hardness, good polishability,excellent photo-etchingability, good EDM machining and weldability							Prehardened Condition						molds require high wear resistance and excellent surface finishing		
S-STAR	SUS 420 J2 Mod., ESR	Prehardened to HB 300-330	0.38	0.9	13.5	-	0.1	0.3	-	-	High mirror surface polishability with corrosion resistance.	Please refer to the corresponding product catalog for the details of heat treatment parameters												High precision plastic molds with high mirror surface finishing		
S-STAR-A	SUS 420 J2 Mod., ESR	Annealed to HB 229 (max.)									High mirror surface polishability with corrosion resistance. Hardness can be obtained up to 50 - 52 HRC with proper heat treatment in order to obtain better polishability, wear resistance and/or corrosion resistance															
DH31-S	SKD61Modified	Annealed to HB 235 (max.)	Patent Pending								Good through-hardening properties especially for large molds, excellent resistance to thermal shock and to thermal fatigue, good resistance to heat erosion	Please refer to the corresponding product catalog for the details of heat treatment parameters						AL, Mg Die casting molds, Parts for die casting molds, AL die extrusion molds, Hard plastics molds								
DHA1	SKD61	Annealed to HB 229 (max.)	0.38	0.9	5.0	-	0.4	1.3	1.0	-	Good through-hardening properties, good resistance to thermal shock and thermal fatigue, good resistance to heat erosion	1030	Oil / Air	-	51	51	52	Zn, small size AL die casting molds, Parts for die casting molds, AL die extrusion molds, Hard plastics molds								
GOA	SKS3 Modified	Annealed to HB 217 (approx.)	0.86	0.3	0.5	0.25	1.2	0.13	-	0.5	High hardenability and wear resistance cold work tool steel	830	Oil	62	60	58	-	Punches for cold forming and blanking, shearing blades for metal sheet								
DC11	SKD11	Annealed to HB 255 (approx.)	1.6	0.4	13.0	0.5	0.6	1.2	0.5	-	Excellent wear resistance with high chromium cold work tool steel	1025	Air	62	60	58	-	Suitable for cold extrusion, cold drawn dies, punching and blanking dies for stainless steel or metal sheets with high hardness								
DC53	SKD11 Modified	Annealed to HB 255 (approx.)	Patent Pending								High toughness chromium cold work tool steel, high temperature tempering after the heat treatment can reach the high hardness of 62 HRC, especial good for much EDM wire cut works to reduce the breakage	Please refer to the corresponding product catalog for the details of heat treatment parameters						Suitable for stamping die, cold forming, deep drawing, thread rolling, punches for high speed blanking, stainless steels materials								

Lung Kee Special Steel																																		
LKM 2311	P20	Prehardened to HB 280-325	0.37	-	1.9	-	1.45	0.2	-	-	Pre-hardened type tool steel for plastic mold	Prehardened Condition						mold for high quality plastic with long run production																
LKM 2312	P20 + S	Prehardened to HB 280-325	0.37	-	1.9	-	1.45	0.2	-	-	Excellent machinability, most suitable for high speed volume machining							Plastic mold for general use and core parts																
LKM 738	P20 + Ni	Prehardened to HB 290-330	0.37	-	2.0	1.0	1.1	0.4	-	-	High quality pre-hardened type tool steel, uniform in hardness and high machinability							mold with high toughness and good finishing																
LKM 738H		Prehardened to HB 330-370																																
LKM 838H	P20 Mod.	Prehardened to HB 330-360	Patent Pending								With special adjustment to the chemical composition, LKM838H's thermal conductivity, machinability, polishability and weldability are better than normal AISI P20 tool steels							suitable for plastic molding of PA,POM, PS, PE, PP, ABS with the requirement of high hardness, polishability and wear resistance																
LKM 838HS											With special adjustment to the chemical composition and steel making process, LKM838HS possesses a better polishability than LKM838H. Good EDM-ability							Suitable for plastic molds requiring high hardness, good polishability and wear resistance																
LKM 818H	P20 Modified	Prehardened to HB 330-370	0.38	0.3	2.0	1.0	1.4	0.2	-	-	Pre-hardened type, high purity with isotropic microstructure contains 1.0% Ni													High quality mold inserts, suitable for plastic molding of PA,POM, PS, PE, PP, ABS										
LKM 2711	DIN 1.2711	Prehardened to HB 335-380	0.55	-	0.7	1.7	0.8	0.25	-	-	High hardness and high toughness													Suitable for medium plastic molds requiring high hardness with good toughness										
LKM 808E	P21 Mod., ESR	Prehardened to HB 360-415	0.1	-	-	3.0	1.5	0.35	-	-	High hardness, good polishability and etching properties													Plastic moulds with requirement of high hardness, good polishing and texturing										
LKM 420	420	Annealed to HB 240 (max.)	0.38	-	13.0	-	0.5	-	-	-	Good anti-rusting property. Hardness can be increased up to HRC 50 - 52 for plastic mold application	Please refer to the corresponding product catalog for the details of heat treatment parameters						Plastic mold with requirement of anti-rusting																
LKM 420H		Prehardened to HB 280-330									Good anti-rusting property	Prehardened Condition						Plastic mold with requirement of anti-rusting and mouldbase with corrosion resistance requirement																
LKM 2083	420	Annealed to HB 240 (max.)	0.43	-	13.0	-	0.3	Some	-	-	Hardness can be obtained up to 50 - 52 HRC with proper heat treatment in order to obtain better polishability, wear resistance and/or corrosion resistance	1020	Oil / Air	56	56	55	52	Corrosion resistance plastic molds																
LKM 2083H		Prehardened to HB 280-320									Pre-hardened type, corrosion resistance, high polishability	Prehardened Condition																						
LKM 2316(Annealed) (Old Name: LKM2316A)	DIN 1.2316	Annealed to HB 230 max.	0.4	-	16.0	Some	0.5	1.0	-	-	Hardness can be obtained up to 47 HRC with proper heat treatment in order to obtain the better wear resistance and corrosion resistance than pre-hardened condition	1030	Oil / Air	47	46	45	-	High corrosion resistance plastic molds																
LKM 2316H(Prehardened) (Old Name: LKM2316 ESR)		Prehardened to HB 265-320									Pre-hardened type, high corrosion resistance								Prehardened Condition															
LKM 2316H ESR(Prehardened) (Old Name: LKM2316 ESR)	DIN 1.2316 ESR	Prehardened to HB 265-320	0.4	-	16.0	Some	0.6	1.2	-	-	High cleanliness, high corrosion resistance	High corrosion resistance molds with good polishability																						
LKM H13	H13	Annealed to HB 225 (max.)	0.38	1.0	5.0	-	0.4	1.3	1.0	-	good toughness	1030	Oil / Air	-	51	51	52	Suitable for hard plastic molds, sliders, zinc die casting dies																
LKM 2343	H11	Annealed to HB 225 (max.)	0.36	1.0	5.0	-	0.4	1.2	0.35	-	Good high tempering strength and high toughness, good resistance to heat checking	1010	Oil / Air	-	51	51	52	Suitable for diecasting molds for Aluminium & Zinc alloys, plastic molds																
LKM 2343 ESR	H11,ESR	Annealed to HB 225 (max.)	0.36	1.0	5.0	-	0.4	1.2	0.35	-	Excellent toughness and ductility in all directions, good strength	1010	Oil / Air	-	51	51	52	Suitable for diecasting molds for Magnesium, Aluminium & Zinc alloys, plastic molds, high polishing required plastic molds																
LKM 2344	H13	Annealed to HB 225 (max.)	0.38	1.0	5.0	-	0.4	1.3	1.0	-	Good high temperature strength, suitable for die casting mold	1030	Oil / Air	-	51	51	52	Suitable for die casting for aluminium and zinc alloys, hard plastics molds																
LKM 2344 ESR	H13 ESR	Annealed to HB 225 (max.)									Homogenous structure and good isotropic property. Good plastic mold with high polishing requirement	1030	Oil / Air	-	51	51	52																	
LKM 2344 SUPER	H13, MICRODIZED + ESR	Annealed to HB 225 (max.)									High toughness and good high temperature strength, with high impact strength exceeding 300J	1030	Oil / Air	-	51	51	52																	
LKM 2510	01	Annealed to HB 230 (approx.)	0.93	-	0.6	-	1.1	-	0.1	0.6	High hardenability and wear resistance cold work tool steel	820	Oil	62	60	56	-	Shearing blades, cold forming, blanking and punching dies																
LKM 2379	D2	Annealed to HB 255 (approx.)	1.55	-	12.0	-	-	0.7	1.0	-	High chromium cold work tool steel with good toughness	1020	Oil / Air	62	61	59	-	Suitable for cold extrusion and forming, cold drawn, punching and blanking of high hardness metal sheet and stainless sheet																
LKM 2767	6F7 (High toughness multi-purpose tool steel)	Annealed to HB 262 (max.)	0.45	-	1.4	4.1	-	0.3	-	-	High strength and toughness, can be hardened to HRC 50-54	840-870	Oil / Air	54	52	50	-	Suitable for high toughness required plastics hard tooling, small sligh ejected pin, cold forming and stamping metal with thickness above 10mm																