

# ASP®, BLUETAP® AND CONVENTIONAL HIGH-SPEED STEEL GUIDE

ERASTEEL

	GRADES		CORRESPONDING STANDARDS			ANALYSIS %					HARDNESS HB*	CHARACTERISTICS AND APPLICATIONS
	ERASTEEL	USA AISI	EUROPE	DIN W.Nr	C	Cr	Mo	W	Co	V	SOFT ANNEALED	
ASP® without Cobalt	ASP®2004	M4	HS 6-5-4	1.3361	1.40	4.2	5.0	5.8	-	4.1	265	Good wear resistance and hardness
	ASP®2005	-	HS 3-3-4	1.3377	1.50	4.0	2.5	2.5	-	4.0	250	Good wear resistance and toughness
	ASP®2009	V9%	-	-	1.80	5.3	1.3	-	-	9.1	250	Wear resistance and toughness for plastics extrusion
	ASP®2011	A11	-	-	2.45	5.3	1.3	-	-	9.5	280	V-alloyed with high abrasion resistance
	ASP®2012	-	HS 2-2-2	1.3397	0.60	4.0	2.0	2.1	-	1.5	230	Very high toughness for hot and cold work
	ASP®2023	M3:2	HS 6-5-3C	1.3395	1.28	4.0	5.0	6.4	-	3.1	260	Non-Co-grade for cold work and cutting tools
	ASP®2053	-	HS 4-3-8	1.3352	2.48	4.2	3.1	4.2	-	8.0	300	V-alloyed grade for good abrasive wear resistance
	ASP®2062	M62	HS 6-11-2	-	1.30	3.8	10.5	6.3	-	2.0	290	High red hardness, good abrasive wear resistance
ASP® with Cobalt	ASP®2015	T15	HS 12-0-5-5	1.3251	1.60	4.0	-	12.0	5.0	5.0	280	High W-alloyed grade for high performance tools
	ASP®2030	-	HS 6-5-3-8	1.3294	1.28	4.2	5.0	6.4	8.5	3.1	290	Co-grade for high performance tools
	ASP®2042	M42	HS 2-9-1-8	1.3247	1.08	3.8	9.4	1.5	8.0	1.2	280	Co-grade for bi-metal bandsaws
	ASP®2048	M48	-	-	1.50	3.8	5.3	9.8	8.5	3.1	300	High alloyed for high performance cutting tools
	ASP®2051	M51	HS 10-4-3-10	1.3207	1.27	4.0	3.6	9.5	10.0	3.2	280	For bi-metal bandsaws, with excellent wear resistance and toughness
	ASP®2052	-	HS 11-2-5-8	1.3253	1.67	4.8	2.0	10.5	8.0	4.9	300	High W- and Co-grade for high performance tools
	ASP®2055	-	-	-	1.69	4.0	4.6	6.3	9.0	3.2	320	2.1% Nb. High alloyed Co-grade with good grindability
	ASP®2060	-	HS 7-7-7-11	1.3292	2.30	4.2	7.0	6.5	10.5	6.5	345	For both, very high hot hardness and wear resistance
	ASP®2078*	-	HS 7-7-7-11S	1.3292	2.30	4.2	7.0	6.5	10.5	6.5	345	High performance grade with improved machinability
	ASP®2190	-	-	-	0.78	4.2	2.9	2.9	29.0	1.1	400	High performance grade with very high Co-content for PVD coated gear cutting tools
Martensitic Stainless Steel	ASP®APZ10	-	-	-	1.25	19.0	2.1	-	-	0.8	280	Good corrosion and wear resistance
	ASP®420H	-	-	-	2.30	14.0	1.0	-	-	9.0	280	Good corrosion and high wear resistance
BlueTap®	BlueTap®Co	M35	HS 6-5-2-5	1.3243	0.93	4.2	5.0	6.4	4.8	1.8	255	Grade for taps with an excellent grindability
	BlueTap®Max	-	-	-	1.08	3.8	9.3	1.5	7.8	1.1	280	Unrivalled tap performance to TCO ratio
HSS without Cobalt	E M2	M2	HS 6-5-2C	1.3343	0.90	4.2	5.0	6.4	-	1.8	250	Grade for general applications, rolls included
	ABC III	-	HS 3-3-2	1.3333	0.99	4.1	2.7	2.8	-	2.4	220	Grade for metal saws and wear parts
	Grindamax™V3	-	HS 7-5-3	1.3347	1.20	3.9	5.2	7.2	-	2.7	265	Grade with excellent grindability
	E M4	M4	HS 6-5-4	1.3351	1.30	4.2	4.5	5.6	-	4.0	250	High wear resistance for cold forming and rolls
HSS with Cobalt	E M35	M35	HS 6-5-2-5	1.3243	0.93	4.2	5.0	6.4	4.8	1.8	260	Grade for general applications
	C8	-	HS 5-6-2-8	1.3209	1.05	4.0	6.0	5.0	7.8	1.6	270	High Co-alloyed grade, high hot hardness, high wear resistance for end mills and milling cutters
	E MAT II	-	HS 1-5-1-8	1.3270	0.72	4.0	5.0	1.0	8.0	1.0	240	Grade for bi-metal saws with good toughness
	E M42	M42	HS 2-9-1-8	1.3247	1.08	3.8	9.4	1.5	8.0	1.2	270	Co-grade for cutting tools and bi-metal bandsaws

\*Typical soft hardness is... / Cold drawn or cold rolled material is typically 10-40 HB harder

\*\* ASP®2078 with 0,23% S

## Machinability

## Wear resistance

## Toughness

## Hot hardness

## Grindability

