Flame Spraying | Powder Selection

Product name	Chemistry (wt%)								Hardness*		Typical properties and applications
	Ni	C	Si	B	Fe	Cr	Mo	Others	Typical HRC	Typical HV	
Ni-based powders											
1240-00 1340-00	Bal.	0,25	3,5	1,6	2,5	7,5	-	-	38	380	• Used as buildup layer on plungers in glass bottle manufacturing industry where good machinability is required • Suitable for bearings, pump rotors, piston heads
1245-00 1345-00	Bal.	0,35	3,7	1,8	2,6	8,9	-	-	44	450	• Used as buildup layer on plungers in glass bottle manufacturing industry where good machinability is required • Ideal for bearings, pump rotors, piston heads
1250-00 1350-00	Bal.	0,45	3,9	2,3	2,9	11,0	-	-	51	570	• Ideal for bearings, seal rings, mixer blades, chipper knives
1255-20 1355-20	Bal.	0,55	4,0	3,4	2,7	16,0	3,0	Cu=3,0	57	700	• Ideal for bearings, seal rings, mixer blades, chipper knives
1260-00 1360-00	Bal.	0,75	4,3	3,1	3,7	14,8	-	-	61	790	• Ideal for oil and gas applications, such as polished rods, rod liners, wash pipes, etc
1360-20	Bal.	0,90	4,3	3,3	4,2	16,3	-	-	62	820	• Ideal for oil and gas applications, such as polished rods, rod liners, wash pipes, etc
1362-10	Bal.	0,60	3,7	2,8	3,5	14,2	-	W=9,5	59	720	• Ideal for oil and gas applications, such as pump plungers, sucker rod couplings
72-W-40 72-M-40	Bal.	0,35	3,1	1,7	3,2	9,9	-	-	37	365	• Ideal for oil and gas applications, such as polished rods, rod liners
74-W-60 74-M-60	Bal.	0,58	4,1	2,9	4,4	13,6	-	-	58	710	• Ideal for oil and gas applications , such as polished rods, rod liners, wash pipes, etc
76-W-50 76-M-50	Bal.	0,55	3,7	2,4	4,1	13,3	-	-	50	550	• Ideal for oil and gas applications, such as polished rods, rod liners, wash pipes, etc
80-W-60 80-M-60	Bal.	0,60	4,2	2,9	4,6	14,0	2,5	Cu=2,4	58	710	• Ideal for oil and gas applications where higher corrosion resistance is required

Product name	Chemistry (wt%)	Standard particle sizes (µm/µm)	Hardness in $HV_{0,1}$	Typical properties and applications

Hard Phase Powders (Carbides and Cermets, blend components)

	C (%)	Co (%)	Others (%)			
Amperweld® CTC	4	-	W bal.	(125/45) (53/20)	2300-2700	• Equivalent to Höganäs material 4370 and 4670 • Cast and crushed eutectic tungsten carbide • Irregular particle form • Available in 25 particles sizes from 3150/800 to 45/15µm • Blend component for PTA, laser, brazing and spray&fuse • For highly wear resistant surface weldings and overlays
Amperit® 519	5,4	12	W bal.	(106/53)	-	• Equivalent to Höganäs material 44712-10 • WC-Co cermet • Agglomerated/sintered • Spherical particles • Blend component

Blends

Product name	Blend composition (wt%)	Matrix	Hard particle
1360-20-35% 44712-10	65% NiSF 35% WC-Co	1360-20	Amperit® 519 .125 (44712-10)
1360-00-35% 4370	65% NiSF 35% CTC	1360-00	Amperweld® CTC (4370)

Product codes

Foot notes

*±2 HRC and corresponding HV_{30} values
** Registered trademark of Kennametall Stellite
***Registered trademark of Haynes International

Powder designations

1 6 20 – 1 1

A B C – D E

A: Alloy base
1 = Nickel (Ni)
2 = Cobalt (Co)
3 = Iron (Fe)
4 = Tungsten carbide (WC)

B: Standard particle size range
0 = 20 – 106 µm
1 = 20 – 71 µm
2 = 36 – 106 µm
3 = 45 – 125 µm
5 = 53 – 150 µm
6 = 15 – 53 µm
7 = 63 – 212 µm

C: Average hardness:
Rockwell C

D: Chemical composition
1–9 = modified

E: Particle size range
1–9 = modified

This brochure only includes our standard materials. Other particle sizes are available on request.