

Powder Welding | Powder Selection

Product name	Chemistry (wt%)								Hardness*	Typical properties and applications	
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Ni-based powders

	Ni	C	Si	B	Fe	Cr	Mo	Others	Typical HRC	Typical HV	
1015-00	Bal.	0,03	2,0	1,1	0,5	-	-	Cu=15	15	210	• Ideal for repair of cast iron e.g. engine blocks
1020-00	Bal.	0,03	2,4	1,4	0,4	-	-	-	20	230	• Welding on new cast iron surfaces • Repair of machining errors
1021-10	Bal.	0,03	2,0	0,65	0,3	3,0	-	P=2,0	21	250	• Lower melting point • Can be filed by hand • Improved fluidity
1623-05	Bal.	0,04	2,5	1,6	0,4	-	-	-	23	270	• Used for small repairs • Can be filed by hand
1025-40	Bal.	0,05	2,7	1,8	0,4	-	-	-	28	295	• Lower melting point • Can be filed by hand • Improved fluidity
1031-10	Bal.	0,03	2,2	0,9	0,3	3,0		P=2,2	28	290	• Improved fluidity
1035-40 1135-40	Bal.	0,32	3,7	1,2	3,0	7,0	-	-	35	360	• Ideal for repair and buildup of small plungers and neck rings in the glass bottle manufacturing industry
1036-40	Bal.	0,15	2,8	1,2	0,4	4,5	2,5	P=1,9	36	375	• Improved fluidity
1040-00	Bal.	0,25	3,5	1,6	2,5	7,5	-	-	40	425	• Ideal for repair and buildup of worn molds, valves, seal rings, splines, etc • Good fluidity
1045-00	Bal.	0,35	3,7	1,8	2,6	8,9	-	-	47	500	• Ideal for repair and buildup of worn molds, valves, seal rings, splines, etc • Good fluidity
1050-00	Bal.	0,45	3,9	2,3	2,9	11,0	-	-	52	580	• Ideal for all applications with high demand on wear and corrosion properties • Suitable for crusher rolls, conveyor screws, pump shafts, mixer blades
1060-00	Bal.	0,75	4,3	3,1	3,7	14,8	-	-	62	810	• Ideal for all applications with high demand on wear and corrosion properties • Suitable for crusher rolls, conveyor screws, pump shafts, mixer blades
602P	Bal.	0,65	4,2	2,9	4,3	13,1	-	-	60	700	• Ideal for all applications with high demand on wear and corrosion properties • Suitable for crusher rolls, conveyor screws, pump shafts, mixer blades

Product name	Chemistry (wt%)	Standard particle sizes (µm/µm)	Hardness in HV _{0,1}	Typical properties and applications
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Hard Phase Powders

	C (%)	Co (%)	Others (%)			
Amperweld® CTC	4	-	W bal.	(106/38)	2300-2700	• Equivalent to Höganäs material 4070 • 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

Blends

Product name	Blend composition (wt%)	Matrix	Hard particle
1060-00-60% 4070	40% NiSF 60% CTC	1060-00	Amperweld® CTC (4070)
1060-00-40% 4070	60% NiSF 40% CTC	1060-00	Amperweld® CTC (4070)