



Powders for use in laser cladding

Extended product range

A large choice of high quality nickel, cobalt and iron based powder solutions, as well as carbide mixes.

Spherical particles is a key feature of our products. Free flow in all powder feeding systems is enhanced. Cost effective gravity feeding systems gain considerably and achieve consistent high productivity.

Comprehensive technical support

Full technical support and capabilities covering material, processes and applications. Serving laser cladding and traditional flame spray, powder welding and PTA applications. Höganäs ArcX facilities (surface coating technology centres) are strategically located and able to serve customers all over the world.

For more information, please contact your local sales representative.

Features

- Optimised powder morphology
- Smooth powder flow
- Consistency between lots
- High deposition efficiency
- Precise coating thickness control
- Fully dense coating

Laser cladding grades

Nickel-base	C %	Si %	B %	Fe %	Cr %	Ni % base	Mo %	Others %	Typical Hardness*		Recommended use/ Features/Comments
									HRC	HV ₃₀	
1535-30	0.25	3.0	1.0	2.4	5.6	Bal.	–	Al=1.0	32	310	For surfacing on cast iron and bronze.
1540-00	0.25	3.5	1.6	2.5	7.5	Bal.	–	–	42	415	Nickel base for medium-to-hard welds, e.g. for diesel engine valves and various types of seals.
1550-00	0.45	3.9	2.3	2.9	11.0	Bal.	–	–	52	550	
625	≤0.03	0.40	–	1.4	21.5	Bal.	9.0	Nb=3.8	17	230	IN 625 ¹⁾
C276-m	0.12	0.5	–	3.0	15.5	Bal.	16	W=4.5 Mn=1.2 V=0.5	17	230	

Cobalt-base	C %	Si %	Fe %	Cr %	Ni %	Co % base	Mo %	W %	Typical Hardness*		Recommended use/ Features/Comments
									HRC	HV ₃₀	
2528-00	0.25	1.0	1.5	27.0	2.8	Bal.	5.5	–	35	340	Stellite 21 ²⁾
2537-00	1.1	1.0	1.5	28.5	1.5	Bal.	–	4.4	41	400	Stellite 6 ²⁾
2540-00	1.7	1.2	1.2	25.7	22.8	Bal.	–	12.5	42	410	Stellite F ²⁾
2541-00	1.4	1.1	1.0	28.5	1.5	Bal.	–	8.0	44	440	Stellite 12 ²⁾
2548-00	2.4	1.1	–	30.0	–	Bal.	–	12.5	55	590	Stellite 1 ²⁾
HB 400	≤0.05	2.7	0.5	9.0	0.5	Bal.	29.5	–	53	560	Triballoy 400 ²⁾
HB 800	0.08	3.4	>2	17.5	>2	Bal.	28	–	58	650	

Iron-base	C %	Si %	Fe % base	Cr %	Ni %	Mo %	Mn %	Others %	Typical Hardness*		Recommended use/ Features/Comments
									HRC	HV ₃₀	
3.33	0.2	1.2	Bal.	28	16.0	4.5	1.0	–	26	270	Stainless steel. 410L ³⁾
3533-00	1.75	1.3	Bal.	28.0	16.0	4.5	0.8	–	38	330	
3533-10	2.1	1.2	Bal.	28.0	11.5	5.5	1.0	–	43	415	
316HSi	≤0.03	1.6	Bal.	17.0	12.0	2.5	1.5	–	–	180	
410L	≤0.03	0.5	Bal.	12.5	–	–	0.1	–	–	230	
420S	0.25	0.5	Bal.	13.0	<1.0	–	1.2	–	55	590	
431HC	0.2	0.75	Bal.	16.0	1.8	–	<1.0	–	53	560	
H13	0.35	1	Bal.	5	–	1.5	0.3	V=1	53	560	Abrasive-wear resistant.
A11	2.5	1.0	Bal.	5.2	–	1.3	0.5	V=9.8 W=0.5	62	–	
M2	1.0	0.3	Bal.	4.0	–	5.0	0.3	V=2.0 W=6.2	63	780	

Tungsten carbide mixes

Mixes group	Matrix	Carbide type	Amount of carbides (wt%) ⁽⁴⁾
Surfit®38WPL	1538-40	4570, 4580, 4590	35-60%
Surfit 40WPL	1540-00	4570, 4580, 4590	35-60%
Surfit 59WPL	1559-40	4570, 4580, 4590	35-60%

More information about tungsten carbide mixes, refer to Höganäs brochure

"Designing for abrasive environments – Ni SF alloy mixes with tungsten carbides"

All grades can be ordered with sieve 53-150 µm, 45-125 µm, or custom engineered to specifications.

* ±2 HRC and corresponding HV₃₀ values.

Foot notes

- ¹⁾ Registered trademark Inco Corp.
- ²⁾ Registered trademark Deloro Stellite
- ³⁾ A.I.S.I. standard
- ⁴⁾ Recommended amount of carbides in the mixes. It is possible to customise mixes to meet your needs.

Recommended use
Features
Comments
