

## PTA and Laser cladding grades

Nickel-base	Particle size $\mu\text{m}$	C %	Si %	B %	Fe %	Cr %	Ni % Base	Mo %	Others %	Hardness		Recommended use/Features/Comments
										HRC	HV <sub>30</sub>	
1535-30	53-150	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	53-150	0.25	3.5	1.6	2.5	7.5	Bal.	–	–	40**	425*	Suitable for wear resistant coatings. Nickel base for medium-to-hard welds, e.g. for diesel engine valves and various types of seals.
1550-00	53-150	0.45	3.9	2.3	2.9	11.0	Bal.	–	–	52**	580*	
1560-00	53-150	0.75	4.3	3.1	3.7	14.8	Bal.	–	–	62**	810*	
1559-40 1759-40	53-150 63-212	$\leq 0.06$	3.0	2.9	0.2	–	Bal.	–	–	49**		Suitable for wear resistant coatings when WC is added.
625	53-150	$\leq 0.03$	0.40	–	1.4	21.5	Bal.	9.0	Nb=3.8		200**	IN 625 <sup>1)</sup>
C276-m	53-150	0.12	0.5	–	3.0	15.5	Bal.	16.0	W=4.5 Mn=1.2 V=0.5		210**	C276 <sup>1)</sup>

Cobalt-base	Particle size $\mu\text{m}$	C %	Si %	Fe %	Cr %	Ni %	Co % Base	Mo %	W %	Hardness		Recommended use/Features/Comments
										HRC	HV <sub>30</sub>	
2528-00	53-150	0.25	1.0	1.5	27.0	2.8	Bal.	5.5	–		340**	Stellite 21 <sup>2)</sup> Stellite 6 <sup>2)</sup> Stellite 6 <sup>2)</sup> Stellite 6 <sup>2)</sup> Stellite F <sup>2)</sup> Stellite 12 <sup>2)</sup> Stellite 1 <sup>2)</sup> Triballoy 400 <sup>2)</sup> Cobalt base for corrosion and oxidation resistance. Better hot hardness values than for equivalent nickel base.
2537-00	53-150	1.1	1.0	1.5	28.5	1.5	Bal.	–	4.4	41**		
2737-00	63-212											
2537-10	53-150	1.3	1.0	1.5	28.5	1.5	Bal.	–	4.4	43**		
2737-10	63-212											
2540-00	53-150	1.7	1.2	1.2	25.7	22.8	Bal.	–	12.5	42**		
2741-00	63-212	1.4	1.1	1.0	28.5	1.5	Bal.	–	8.0	44**		
2748-00	63-212	2.4	1.1	–	30.0	–	Bal.	–	12.5	56**		
HB400	53-150	$\leq 0.05$	2.8	0.5	9.7	0.5	Bal.	29.5	–	53**		

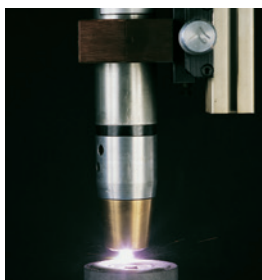
Iron-base	Particle size $\mu\text{m}$	C %	Si %	Fe % Base	Cr %	Ni %	Mo %	Mn %	Others %	Hardness		Recommended use/Features/Comments
										HRC	HV <sub>30</sub>	
3533-00	53-150	1.75	1.3	Bal.	28.0	16.0	4.5	0.8	–	33**		316L <sup>3)</sup> stainless steel. 410L <sup>3)</sup> Abrasives-wear resistant.
3733-00	63-212											
3533-10	53-150	2.1	1.2	Bal.	28.0	11.5	5.5	1.0	–	42**		
316L	53-150	$\leq 0.03$	0.8	Bal.	17.0	12.0	2.5	1.5	–		160**	
410L	53-150	$\leq 0.03$	0.5	Bal.	12.5	–	–	0.1	–		220**	
M2	53-150	1.0	0.3	Bal.	4.0	–	5.0	0.3	V=2.0 W=6.2	63**		

All grades can be ordered with sieve 53–150  $\mu\text{m}$ , 63–212  $\mu\text{m}$  and 45–125  $\mu\text{m}$ .

\* Indicative value

\*\* Measured value for PTA, higher with laser

Recommended use  
Features  
Comments



Plasma Transferred Arc (PTA) surfacing is ideal for high unit volume automated applications, such as thermal surfacing of exhaust valves. Low base metal dilution and a wide range of consumables are two of several advantages that the technique can offer.

