

SURFACING ALLOYS
WALLEX™ SELECTOR CHART



WALLEX™
(cobalt-based)

ALLOY	NOMINAL COMPOSITION (%)							ROCKWELL HARDNESS (C-scale)	SUPPLIED AS	DESCRIPTION AND GENERAL USES
	C	Cr	Si	W	Co					
PTA / Laser Alloys										
6	1.2	28.3	1.3	4.5	Bal			38-44	PTA (6P5) HVOF (6HV) Laser (6L)	Excellent resistance to wear, galling and corrosion to high temperatures. This versatile hardfacing alloy's uses include for hot shear knives and blades, hot trim dies, pump shafts and bearings, erosion shields, heat shields, valve seats and gates.
12	1.8	29.0	1.3	4.5	Bal			45-50	PTA (12P5) HVOF (12HV) Laser (12L)	Wallex 12 is a good choice for abrasive wear under high heat and corrosive conditions. Proven applications include cutting edges of blades in textile and carpet industries, saw tips in the timber industry, engine valves.
	B	C	Cr	Ni	Si	W	Co			
Cobalt Spray and Fuse Alloys										
40	2.0	0.6	16.2	23.5	1.9	7.6	Bal	40-47	Sprayweld PTA (40PTA) HVOF (40HV) Laser (40L)	Wallex 40 is a sprayable alternative to Wallex 6, having the self-fluxing attribute which enables coatings to be fused, even in air. It is a good hard-surfacing choice where chemical or atmospheric corrosion is accompanied by metal on metal wear and/or impact.
45	2.4	0.7	17.0	22.0	2.2	8.3	Bal	45-50	Sprayweld PTA (45PTA) HVOF (45HV) Laser (45L)	Wallex 45 is a good choice for abrasive wear under high heat and corrosive conditions. Proven applications include cutting edges of blades in textile and carpet industries, saw tips in the timber industry, engine valves.
50	3.4	0.8	19.0	18.0	2.8	10.0	Bal	56-61	Sprayweld PTA (50PTA) HVOF (50HV) Laser (50L)	Wallex 50 is a self-fluxing, sprayable cobalt alloy powder with excellent corrosion and abrasion resistance. It is considered a suitable alternative to Wallex 1.
	B	C	Cr	Ni	Si	W	Co			
Contains Tungsten Carbide Paricles										
55	2.0	2.4	11.9	12.5	1.6	34.4	Bal	58 min.	Sprayweld	Wallex 55 has been successful in lowering replacement costs on many different parts including: shaft sleeves, pump components, bushings, buffing fixtures, cutting tool chip breakers and high temperature , un-lubrictaed sleeve bearings operating in liquid sodium, liquid potassium and NaK.

The information provided herein is given as a guideline to follow. It is the responsibility of the end user to establish the process information most suitable for their specific application(s). Wall Colmonoy Corporation assumes no responsibility for failure due to misuse or improper application, or for any incidental damages arising out of the use of this material or process.