

Spray Fuse and Powder Welding

Deloro Stellite powders are gas atomised powders. Spray-Fuse & Powder Welding are available in these standard size ranges:

Spray-fuse powders are available in these standard size ranges:

- M 106/45 µm (Metco torch)
- S 106/38 µm (Eutectic torch)

Powder Welding powders are available in these standard size ranges:

- KS 63/20 µm
- KX 106/20 µm

Please see the table below for details of our Spray-Fuse & Powder Welding powders. Note – the hardness of the weld deposit may vary from that provided depending upon the process parameters and extent of dilution.

ALLOY	NOMINAL ANALYSIS OF POWDER ¹								Others	Hardness (HRC) ²
	Co	Cr	W	C	Ni	B	Fe	Si		
COBALT BASE ALLOYS (GAS ATOMIZED POWDERS)										
Stellite SF1	Bal.	19	13	1.3	13.5	2.45	3	2.8	<0.5% Mn	50-60
Stellite SF6	Bal.	19	7.5	0.8	14	1.7	3	2.6	<0.5% Mn	40-48
Stellite SF12	Bal.	19	9	1.1	14	1.9	3	2.8	<0.5% Mn	42-52
Stellite SF20	Bal.	19	15	1.6	14	2.9	3	3.2	<0.5% Mn	55-65
Stellite 157	Bal.	21	4.5	0.1	<2.0	2.5	<2	1.6	<0.5% Mn	45-55
Deloro 15	-	-	-	<0.05	Bal.	1.1	0.5	2.0	20%Cu	180-230 DPH
Deloro 21	-	3	-	<0.05	Bal.	0.8	<0.5	2.1	2.2%	240-280 DPH
Deloro 22	-	-	-	<0.05	Bal.	1.4	<1.0	2.5		18-24
Deloro 25	-	-	-	<0.06	Bal.	1.7	<1.0	2.7		22-28
Deloro 29	-	3	-	<0.05	Bal.	0.9	<0.5	2.2	2.2%	27-30
Deloro 30	-	9	-	0.2	Bal.	1.2	2.3	3.2		29-39
Deloro 34	-	4.5	-	0.15	Bal.	1.2	0.3	2.8	2.5%Mo, 2.2%	33-37
Deloro 35	-	4	-	0.4	Bal.	1.6	1.5	3.4		32-42
Deloro 36	-	7	-	0.3	Bal.	1.2	3	3.7		34-42
Deloro 38	-	-	-	0.05	Bal.	2.1	0.5	3.0		35-42
Deloro 40	-	7.5	-	0.3	Bal.	1.7	2.5	3.5		38-45
Deloro 45	-	9	-	0.35	Bal.	1.9	2.5	3.7		42-50
Deloro 50	-	11	-	0.45	Bal.	2.3	3.3	3.9		47-53
Deloro 55	-	12	-	0.6	Bal.	2.7	4.0	4.0		52-60
Deloro 60	-	15	-	0.7	Bal.	3.1	4.0	4.4		57-65

¹ Nominal analysis is a guideline only for standard product, does not include all incidental elements and may differ depending on the exact specification/standard used when ordering.

² Undiluted weld metal. Rockwell C units unless otherwise stated

ALLOY	NOMINAL ANALYSIS OF POWDER ¹									Hardness (HRC) ²
	Co	Cr	W	C	Ni	B	Fe	Si	Others	
Deloro 75	-	17	-	0.9	Bal.	3.5	4.5	4.5	2%Cu, 3%Mo	53-63
Deloro 6116	-	15.3	-	0.03	Bal.	4.0	-	-		
Stelcar Powders	Blends of WC, WC/Co and Deloro alloy powders. Size and chemistry to customer requirement.									
Super Stelcar 40	Blend of tungsten carbide (40%) and Deloro 50 alloy (60%)									
Super Stelcar 50	Blend of tungsten carbide (50%) and Deloro 50 alloy (50%)									
Super Stelcar 60	Blend of tungsten carbide (60%) and Deloro 50 alloy (40%)									
Super Stelcar 70	Blend of tungsten carbide (70%) and Deloro 50 alloy (30%)									

Other alloy compositions may be available on request.