

## WELDING ROD

Deloro Stellite manufactures welding rods via the continuous cast method. The rod can be supplied as cast, straightened, finished or ground. Our rods come in standard 1m lengths (36" for N America & Canada) and the following diameters;

- 2.6 mm (3/32")
- 3.2 mm (1/8")
- 4.0 mm (5/32")
- 5.0 mm (3/16")
- 6.4 mm (1/4")
- 8.0 mm (5/16")

Note however that special sizes, lengths or packaging requirements are available on request.

Please see table below for details of our alloys available in rod form.

ALLOY	NOMINAL ANALYSIS OF WELDING ROD <sup>1</sup>								Others	UNS	ASME/ AWS <sup>2</sup>	Hardness (HRC) <sup>3</sup>
	Co	Cr	W	C	Ni	Mo	Fe	Si				
<b>COBALT BASE ALLOY BARE WELDING RODS</b>												
Stellite 1	Bal.	32	12	2.45	<3.0	<1.0	<3.0	<2.0	<0.5	R30001	(SF)A 5.21 ERCoCr-C	51-56
Stellite 6	Bal.	30	4 - 5	1.2	<3.0	<1.0	<3.0	<2.0	<0.5	R30006	SFA 5.21 ERCoCr-A	40-45
Stellite 12	Bal.	30	8	1.4-1.8	<3.0	<1.0	<3.0	<2.0	<0.5	R30012	(SF)A 5.21 ERCoCr-B	46-51
Stellite 20	Bal.	33	16	2.45	<3.0	<1.0	<3.0	<2.0	<0.5	-	-	53-59
Stellite 21	Bal.	28	-	0.25	3	5.2	<3.0	<1.5	<0.5	R30021	(SF)A 5.21 ERCoCr-E	28-40 *
Stellite 22	Bal.	28	-	0.30	1.5	12	<3.0	<2.0	<0.5	-	-	41-49 *
Stellite 25	Bal.	20	14	0.1	10	<1.0	<3.0	<1.0	<0.5	-	-	20-45 *
Stellite 31	Bal.	26	7.5	0.5	10	-	<2.0	<1	<0.5	R30031	-	20-35 *
Stellite F	Bal.	26	12	1.7	22	<1.0	<3.0	<2.0	<0.5	R30002	(SF)A 5.21 ERCoCr-F	40-45
Stellite 107	Bal.	31	4	2	24	-	<2.0	<3.0	<0.5	-	-	38-47
Stellite 190	Bal.	27	13.5	3.2	<1	<1.0	<3.0	1.0	<0.5	R30014	(SF)A 5.21 ERCoCr-G	54-59
Stellite 250	Bal.	28	-	0.1	-	-	21	<1.0	<0.5	-	-	20-28
Stellite 306	Bal.	25	3	0.5	6	-	4	1	6% Nb	-	-	32-42 *
Stellite 694	Bal.	28	19	1	5	-	<3.0	1	1% V	-	-	48-54

<sup>1</sup> 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.

<sup>2</sup> When written certification to a standard is required, please specify this when ordering. Certain products can also be certified to AMS, SAE and other standards. Please contact us for more details.

<sup>3</sup> Undiluted weld metal

ALLOY	NOMINAL ANALYSIS OF WELDING ROD <sup>1</sup>								Others	UNS	ASME/ AWS <sup>2</sup>	Hardness (HRC) <sup>3</sup>
	Co	Cr	W	C	Ni	Mo	Fe	Si				
Stellite 706	Bal.	31	-	1.2	<3.0	4	<3.0	<1.0	<1.0	-	-	39-44
Stellite 712	Bal.	31	-	1.5/1.9	<3.0	8	<3.0	<2.0	<1.0	-	-	46-51
ULTIMET	Bal.	26	2	0.06	9	5	3	-	<1.0	R31233	-	28-45 *

#### NICKEL BASE ALLOY BARE WELDING RODS

Nistelle C	-	17	5	0.1	Bal.	17	6	-	0.3% V	N30002	-	17-27 *
Nistelle 625	-	21	-	<0.10	Bal.	8.5	<5	-	3.3% Nb	N06625	(SF)A 5.14	ERNiCrMo-3
Deloro 40	-	12	-	0.4	Bal.	-	2-3	2.9	1.6% B	N99644	(SF)A 5.21 ERNiCr-A	36-42
Deloro 50	-	12	-	0.5	Bal.	-	3-5	3.5	2.2% B	N99645	(SF)A 5.21 ERNiCr-B	48-55
Deloro 55	-	12	-	0.6	Bal.	-	3-5	4.0	2.3% B	-	-	52-57
Deloro 60	-	13	-	0.7	Bal.	-	3-5	4.3	3.0% B	N99646	(SF)A 5.21 ERNiCr-C	57-62

#### INTER-METALLIC LAVES PHASE ALLOY WELDING RODS (TRIBALLOY® ALLOYS)

T-400	Bal.	8.5	-	<0.08	<1.5	28	<1.5	2.5	<1.0	R30400	-	54-58
T-400C	Bal.	14	-	< 0.08	<1.5	27	<1.5	2.6	<1.0	-	-	54-59
T-401	Bal.	17	-	0.2	<1.5	22	<1.5	1.3	<1.0	-	-	47-53
T-700 (Ni based)	<1.5	16	-	< 0.08	Bal.	32	<1.5	3.4	<1.0	-	-	50-58
T-800	Bal.	18	-	< 0.08	< 1.5	28	<1.5	3.4	<1.0	-	-	55-60
T-900	Bal.	18	-	< 0.08	16	22	-	2.7	<1.0	-	-	52-57

\* depending upon the degree of work hardening