

CORMET 1

FCAW

1 $\frac{1}{4}$ Cr-1 $\frac{1}{2}$ Mo CREEP RESISTING STEEL FLUX CORED WIRE

PRODUCT DESCRIPTION

Cormet 1 is an all-positional flux cored wire suitable for welding fixed pipework. Made using a high purity steel sheath with a metal recovery of about 90% with respect to the wire.

CLASSIFICATIONS

AWS A5.29M	E81T1-B2C/M-H4
AWS A5.36	E81T1-C1PZ-B2-H4 or E81T1-M21PZ-B2-H4 (depending on shielding gas)
ISO 17634-B	T55T1-1C/M-1CM
APPROVALS	TÜV (M21)

ASME IX QUALIFICATION

QW432	F-No 6
QW442	A-No 3

CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Mo	Cu
Min.	0.05	--	--	--	--	1.00	0.40	-
Max.	0.12	1.25	0.80	0.03	0.03	1.50	0.65	0.30
Typical	0.06	1.0	0.3	0.01	0.01	1.3	0.55	0.05

ALL-WELD MECHANICAL PROPERTIES

Properties after PWHT	Min.	Typical 690°C/1-2h
Tensile strength [MPa]	550	635
0.2% proof strength [MPa]	470	545
Elongation [%] 4d	19	24
5d	17	22
Impact ISO-V(J) +20°C	--	150
-20°C	--	80
Hardness [HV]	--	200

TYPICAL OPERATING PARAMETERS

Shielding gas: 80%Ar-20%CO₂, at 20-25l/min. Proprietary gases may be used but argon should not exceed 80%. The wire is also suitable for use with 100%CO₂ (Note: for 100%CO₂ shielding gas, voltage should be 1-2V higher). **Current:** DC+ve ranges as below:

Diameter (mm)	Amp-Volt Range	Typical	Stickout
1.2	160 – 260A, 24-30V	190A, 25V	15 – 25mm
1.6	220 – 350A, 26-32V	260A, 28V	15 – 25mm

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
1.2	16	S300	CORM1-12N
1.6	16	S300	CORM1-16N

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr ³	Cr ⁶	Cu	F	OES (mg/m ³)
20	8	< 0.5	1	<1	<1	8	5

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to www.specialalloys.eu for any updated information.