

SUPERROOT 316L

TIG (GTAW)

FLUX CORED TIG WIRE FOR ROOT WELDS WITHOUT BACK PURGE

PRODUCT DESCRIPTION

Flux cored TIG wire Superroot 316L is made with a seamless austenitic stainless steel sheath, which results in a robust moisture resistant wire and rutile flux system. Superroot 316L is designed specifically for situations where it is impractical to apply back-purge for the TIG root run, or to gain the economic benefit of eliminating back-purge. For most applications, the use of a 316L root bead is considered compatible with subsequent filling with 308L, 347 or 316L as appropriate.

Metal recovery is 90% with respect to the whole wire.

CLASSIFICATIONS

AWS A5.22M	R316LT1-5
ISO 17633-B	TS316L-R11

ASME IX QUALIFICATION

QW432	F-No 6
QW442	A-No 8

CHEMICAL COMPOSITION (WIRE WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	FN
Min.	--	1.0	0.20	--	--	18.0	11.0	2.5	--	3
Max.	0.03	2.0	1.00	0.020	0.030	20.0	14.0	3.0	0.3	10
Typical	0.01	1.4	0.80	0.01	0.015	18.5	12.8	2.6	0.15	6

ALL-WELD MECHANICAL PROPERTIES

As welded	Min.	Typical
Tensile strength [MPa]	510	605
0.2% proof strength [MPa]	320	465
Elongation [%] 4d	30	35
5d	30	33
Impact ISO-V(J) -130°C	--	> 100
-196°C	--	> 60
Hardness cap/mid HV	--	200/220

* See data sheet B-38 for as-welded cryogenic applications at -196°C.

TYPICAL OPERATING PARAMETERS

Shielding gas	Current	Diameter (mm)	Parameters
Argon	DC-	2.2	90A, 12V

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
2.2	5	PE TUBE	SR316L-22