

SL-81T

Seamless FCAW Wire

For MIG/MAG Cored Wires C-Mn & low alloy steels

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SL SERIES
SEAMLESS WELDING

Betaweld SL-81T is a seamless copper coated rutile flux cored wire for gas shielded metal arc welding of unalloyed steels for operating temperatures from -40°C up 450°C. The enhanced degree of fill provides a higher current carrying capacity and deposition rate. It can be applied in all positions with only one parameter setting (24V/Wire feed @ 9.0m per min/1.2mm wire). The weld metal produced features excellent mechanical properties and hydrogen content of <5ml per 100g deposited weld metal. Low spatter and easy slag removal, finely rippled and pore free welds are produced without undercut. To be used with mixed gas.

Classification

EN ISO	17632-A: T 46 4 1Ni P M 1 H5
AWS	A5.36: E81T12-M21A2-Ni1-H4
AS/NZS ISO	17632-B: T554T1-1MA-N1-UH5

Approvals

Grade

ABS	4Y46SA H5
BV	SA4Y46M H5
DB	●
DNV	IVY46MS H5

Approvals

Grade

GL	4Y46H5S
LRS	4Y46S H5
RMRS	4Y46S H5
TÜV	●



Manufactured in Europe

Current condition and welding position

DC+



PA PB PC PD PE PF PG



Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Ni
0.06	1.3	0.4	≤ 0.010	≤ 0.010	≤ 1.0

Shielding Gas - EN ISO 14175 : M21

Materials

S(P)275-S(P)460

X42 - X70

Storage

Keep dry and avoid condensation

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J) -40 °C
As Welded	≥ 470	550-680	≥ 24	≥ 60
580 °C x 2 h/f.	≥ 470	550-680	≥ 24	≥ 47

Gas test: 82% Ar+18% CO2

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SL-81T Operating Data

Wire Dia (mm)	Current Range	Voltage Range	Stickout (ESO)	Optimum Amperage	Voltage	Welding Positions
1.2mm	250-330	27-31	20-25	280A	31V	Flat
1.6mm	350-400	27-31	25-30	360A	31V	Flat
1.2mm	230-280	26-30	20-25	260A	28V	HV Fillet
1.6mm	310-360	26-30	25-30	320A	29V	HV Fillet
1.2mm	170-220	24-28	15-20	200A	24V	Vertical Up
1.6mm	200-250	24-28	15-20	240A	25V	Vertical Up
1.2mm	160-210	24-28	15-20	200A	24V	Overhead
1.6mm	190-240	24-27	15-20	220A	24V	Overhead

This operating data is given as a guide only. Actual settings will depend on the machine, material thickness, gas used and the operator techniques.

SL-81T Packaging Data

Part No	Wire Diameter (mm)	Pack Description	Weight	Pallet Size
2145	1.2mm	Spool/Carton	15kg	62 Spools
2146	1.6mm	Spool/Carton	15kg	62 Spools

