

NOVOFIL T1

MIG/MAG welding wire for high strength steels

MIG/MAG

ER100S-G

DESCRIPTION

It is a low alloyed MIG/MAG wire, used for welding fine-grained and high strength steels with a yield strength up to 680 N/mm². Especially used for low temperature applications that are manufactured from Ni-Cr-Mo steels.

Industry: Bridge, tank and railway fabrication, mining and ship building industry.

CLASSIFICATION

AWS A5.28: ER100S-G

EN ISO 16834-A: G Mn3NiCrMo

EN ISO 16834-A: G 55 4 M21 Mn3NiCrMo

COATING TYPE

Copper coated

Bronze coated

Copper free

APPROVALS

CE

SHIELDING GASES

M21: Ar + 5-25% CO₂

C1: 100% CO₂

WELDING POSITIONS



PA

flat



PB

horizontal-vertical



PC

horizontal



PE

overhead



PF

vertical up



PG

vertical down

DIAMETERS

1.00

mm · .039 in

1.20

mm · .045 in

1.60

mm · .062 in

PACKAGING

ø mm	0.60	0.80	0.90	1.00	1.20	1.60
Spool	–	–	–	✓	✓	✓
Drum	–	–	–	✓	✓	✓

Spool weight: 15 kg – 16 kg – 18 kg

Drum weight: 250 kg – 300 kg – 450 kg

CHEMICAL ANALYSIS OF THE WIRE [%]

	C	Mn	Si	Ni	Cr	Mo	Cu
Value	0.09	1.65	0.6	1.5	0.3	0.3	< 0.25

MECHANICAL PROPERTIES OF THE WELD METAL

	Gas M21
Yield strength Re	680 MPa
Tensile strength Rm	770 MPa
Elongation A5	24%
Impact test KV (-20 °C)	60 J
Impact test KV (+20 °C)	110 J

MATERIALS TO BE WELDED

Fine grained steels

DIN: StE 460 – StE 620 • EN: S620Q; P460N

Heat treated fine grained structural steels

DIN: N-A-XTRA 56, N-A-XTRA 63, N-A-XTRA 70 • EN: S550QL1, S620QL1, S690QL1 • DIN: T1, T1A, T1B

Pipe materials

EN: L485MB, L555MB • DIN: X60, X65, X70, X80 (API 5LX)