

NOVOFIL SG1

MIG/MAG welding wire for mild steels

MIG/MAG

AWS ER70S-3

DESCRIPTION

NOVOFIL SG1 is a copper coated gas metal arc welding wire in 15 kg spools or 250 kg drums. It is particularly designed for semi-automatic and full-automatic GMAW applications.

100% CO₂ or 80% Ar + 20% CO₂ are used for gas shielding.

CLASSIFICATION

AWS A5.18: ER70S-3

EN ISO 14341-A: G 38 2 M21 2Si1

COATING TYPE

Copper coated

Bronze coated

Copper free

APPROVALS

CE

SHIELDING GASES

ISO 14175 / EN 439

M21: Ar + 15-25% CO₂

C1: 100% CO₂

DIAMETERS

0.60

mm · .025 in

0.80

mm · .030 in

0.90

mm · .035 in

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**

WELDING POSITIONS



PA

flat



PB

horizontal-vertical



PC

horizontal



PE

overhead



PF

vertical up



PG

vertical down

CHEMICAL ANALYSIS OF THE WIRE [%]

	C	Mn	Si	P	S	Ni	Cr	Mo	Cu
min	0.06	0.90	0.50	–	–	–	–	–	–
max	0.14	1.30	0.80	0.025	0.025	0.15	0.15	0.15	0.30

MECHANICAL PROPERTIES OF THE WELD METAL

	Gas M21	Gas C1
Yield strength Re	420 MPa	400 MPa
Tensile strength Rm	530 MPa	480 MPa
Elongation A5	28%	26%
Impact test KV (+20 °C)	130 J	100 J
Impact test KV (–20 °C)	70 J	50 J

MATERIALS TO BE WELDED

ASTM

A 139 • A 210 Gr A1, C • A 36 • A 234 Gr WPB • A 334 Gr 1 • A 106 Gr A, B, C • A 131 Gr A, B, D • API 5LX42 • API 5LX46 • API 5LX52 • API 5LX60

EN

10113-2 S275, S355, S420 • 10113-3 S275M, S275ML, S355M, S355ML • 10113-3 S420M, S420ML • 10025 S185, S235, S275, S355 • 10208-1 L210, L240, L290, L360

Others

Fe 360, 430, 510 • EN 288-3 gr. 1