



Test certificate

(According to EN 10204 - Type 3.1)

Special wire products (p) Ltd.,

235, Sidco Industrial Estate,

Ambattur, Chennai-600098

Brand : STAR

Product : MIG WELDING WIRE

Classification : S4-C504 (ER70S-6)

Specification : AWS A5.18-2017;ASME SFA A5.18;IS 6419:1996

Batch No : A72775

Size ϕ : 0.80 mm

Test certificate no : 1703

MFD : 01.09.2026

Email : sales@specialwires.in

Web site : www.specialwire.in

STAR Approvals

BIS Certificate No : 6700115211

IRS Certificate No : MDR22WC027

IBR Certificate No : Tech - II /611/2026

CE Certificate No : 24DCMH76/S1

This is to certify that all tests required by the specifications shown for classification were performed, and the material tested met all requirements. It is manufactured and supplied as per the Quality system program of SWP, which meets the requirements of ANSI/AWS A5.18-2017,IS 6419:1996 and other specification, as applicable.

OPERATING PARAMETERS	SIZE OF WIRE(MM)	POLARITY CURRENT TYPE	SHIELDING GAS	NOMINAL VOLTAGE (V)	NOMINAL CURRENT, (A)	STICK OUT DISTANCE, (MM)	GAS FLOW L/M	CAST, (mm)	HELIX (mm)	FINISH
SPECIFICATION	ϕ 0.80 - 0.05	DC+	80%Ar + 20%CO ₂ (or) 100% Co ₂	18 - 26	100 - 200	10 - 20	15-20	380 min	25 Max	Smooth
ACTUAL	ϕ 0.77	DC+	100% Co ₂	23	180	15	17	790	1	Smooth

RESULT : The Operating Parameters met the requirements of AWS A5.18-2017;ASME SFA A5.18,IS 6419:1996

CHEMICAL COMPOSITIONS OF WIRE

CHEMICAL COMPOSITIONS	C	Mn	Si	P	S	Cr	Ni	Mo	V	Cu
SPECIFICATION	0.06 - 0.15	1.40 - 1.85	0.80 - 1.15	0.025 Max	0.035 Max	0.150 Max	0.150 Max	0.15 Max	0.03 Max	0.50 Max
ACTUAL	0.064	1.45	0.859	0.011	0.003	0.044	0.013	0.002	0.002	0.010

RESULT : The Chemical Composition of the wires met the requirements of AWS A5.18-2017;ASME SFA A5.18;IS 6419:1996

MECHANICAL PROPERTIES OF WELDED

MECHANICAL PROPERTIES	Tensile strength [N/mm ²]	Yield Strength [N/mm ²]	Elongation %	Average impact energy J@-30°C					
SPECIFICATION	480 min	400 min	22 min	27					
ACTUAL	595	472	24	1	2	3	4	5	AVG
				148	155	148	142	147	148

RESULT : The Mechanical Properties of the welded met the requirements of AWS A5.18-2017;ASME SFA A5.18,IS 6419:1996

Note : Radiographic report NSD Acceptable

Rev No: 02

Rev Date : 09.11.2023

Prepared By,

Approved By,

