



# Test certificate

Special wire products (p) Ltd.,  
235, Sidco Industrial Estate,  
Ambattur, Chennai-600098

Brand	: STAR	Test certificate no	: 1586
Product	: MIG WELDING WIRE	MFD	: 06.08.2024
Classification	: ER70S-6	Email	: <a href="mailto:sales@specialwires.in">sales@specialwires.in</a>
Specification	: AWS A5.18-2017;ASME SFA A5.18	Web site	: <a href="http://www.specialwire.in">www.specialwire.in</a>
Batch No	: E975868		
Size $\phi$	: 1.00 mm		

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 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
SPECIFICATION	$\phi$ 1.0 - 0.05	DC+	80%Ar + 20%CO <sub>2</sub> (or) 100% Co <sub>2</sub>	18-30	150-300	10 - 20	15-20
ACTUAL	$\phi$ 0.97	DC+	100% Co <sub>2</sub>	25	220	15	17

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

## CHEMICAL COMPOSITIONS OF WIRE

CHEMICAL COMPOSITIONS	C	Mn	SI	P	S	Cr	Ni	CU
SPECIFICATION	0.06-0.15	1.40-1.85	0.80-1.15	0.025 MAX	0.035MAX	0.150 Max	0.150 Max	0.50MAX
ACTUAL	0.066	1.43	0.866	0.015	0.005	0.023	0.008	0.007

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

## MECHANICAL PROPERTIES OF WELDED

MECHANICAL PROPERTIES	Tensile strength [N/mm <sup>2</sup> ]	Yield Strength [N/mm <sup>2</sup> ]	Elongation %	Average impact energy J@-30°C					
				1	2	3	4	5	AVG
SPECIFICATION	480 min	400 min	22 min	27					
ACTUAL	535	440	32	133	138	140	135	127	134.6

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

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**Quality Assurance**