



# Test certificate

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

|                |                                 |                     |  |
|----------------|---------------------------------|---------------------|--|
| Brand          | : STAR                          | Test certificate no | : 1660   |
| Product        | : MIG WELDING WIRE              | MFD                 | : 13.03.2025   |
| 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       | : E997054                       |                     |  |
| 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><br>(or) 100% Co <sub>2</sub> | 18-30               | 150-300              | 10 - 20                  | 15-20        |
| ACTUAL               | $\phi$ 0.97       | DC+                   | 100% Co <sub>2</sub>                                    | 23                  | 247                  | 17                       | 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                | 0.073     | 1.47      | 0.880     | 0.015     | 0.005    | 0.02      | 0.009     | 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                                   | 580                                 | 38           | 157                           | 140 | 142 | 152 | 128 | 143.8 |

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

Note : Radiographic report NSD Acceptable

Rev No: 02

Rev Date : 09.11.2023

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Quality Assurance