

A **TATA** Enterprise



A **TATA** Enterprise



spark | **spark**
WELDING ELECTRODES | MIG WELDING WIRE

Contact Us:



Regd. Office:

Flat 7 D&E, 7th Floor, Everest House, 46C Chowringhee Road
Kolkata 700 071, West Bengal, India

Corporate & Works Office:

Indranagar, Jamshepur 831 004, Jharkhand, India
Phone: +91 65766 90524

✉ info@iswp.co.in | spark@iswp.co.in 🌐 ispw.co.in 📞 1800 419 4012

🐦 @ISWPLtd 📷 iswpsteel 🌐 The Indian Steel & Wire Products Ltd. 📘 The Indian Steel & Wire Products Ltd.

TATA STEEL

THE INDIAN STEEL & WIRE PRODUCTS LTD. IS A SUBSIDIARY OF TATA STEEL

SPARK OF EXCELLENCE



spark | **spark**
WELDING ELECTRODES | MIG WELDING WIRE

TATA STEEL

THE INDIAN STEEL & WIRE PRODUCTS LTD. IS A SUBSIDIARY OF TATA STEEL



The Graphiti Plant set up in coordination with Tata Steel NMB

Inauguration of Graphene facility at Jamshedpur by Mr Ratan Tata along with Mr N. Chandrasekaran, Mr T. V. Narendran, Dr Debashish Bhattacharjee and Mr Neeraj Kant



Entrance, The Indian Steel & Wire Products

“About the Company

The Indian Steel and Wire Products Ltd. (ISWP) is a Tata Enterprise and is a Subsidiary of Tata Steel Ltd. The Company is almost 100 years old, and it came into the fold of the Tata Group in 2003. The Company is engaged in manufacturing of long steel products like Wire Rods, TMT, Galvanized Wires, Binding Wires, etc. It also produces downstream wire products like Barbed Wire, Chain Link, Nails, Electrodes, MIG Welding Wire, etc. The Company has recently collaborated with Tata Steel to set up the world’s largest single site manufacturing facility for Graphene – a new material developed by Tata Steel.

The major manufacturing activities of the Company are centered around Jamshedpur – the oldest steel city of India. The Company has over 1500 employees and has a vast infrastructure spread around 350 acres in the heart of the city of Jamshedpur. The ISWP township has more than 800 houses/flats, a well-equipped hospital, Officers’ Club, Guest House, Management Trainee Hostels, etc. ISWP is proud to house the reputed “Naval Tata Hockey Academy” in its premises.

The Company has won the Award for Excellence in Consistent TPM Commitment” in 2020. This Total Productive Maintenance

Award is given by the Japan Institute of Plant Maintenance and is an extremely valuable international recognition for excellence in operations/maintenance and overall business improvement. The Company has also been categorized as an “Emerging Industry Leader” by the Tata Group. It has won several other prestigious awards from The Confederation of Indian Industry for excellence in HR practices, Energy Management, Safety, etc.

ISWP is engaged in very impactful corporate social responsibilities. It supports more than 400 tribal girl students to become independent through education and skill development through its interventions in Kasturba Gandhi Balika Vidyalaya, Potka, East Singhbhum, Jharkhand. This unique initiative has been appreciated by the Tata Group as well as government bodies like Niti Aayog, NCERT, Jharkhand Government, etc. The Company provides grass root training to archers from remote villages. The nationally and internationally famed archers like Komalika Bari, Laxmi Hembram, etc. were initially selected and trained by ISWP before they went to higher training centres/academies.



Felicitations of Miss Komalika Bari by Mr Neeraj Kant, MD, ISWP

Sparking a Transformation in Excellence

ISWP offers a comprehensive range of welding consumables for welding of carbon-manganese steels, low alloy steels, stainless steels and repair & maintenance applications —

- Manufactured in an advanced plant set-up to ensure optimum quality standards are met
- Manufactured as per AWS & BIS standards
- Superior quality raw materials are procured and tested to ensure high product performance

- Robust packaging to ensure zero damage of the product
- Comprehensive quality assurance systems installed in all production units for ensuring consistent product quality
- In-house testing facilities and modernized equipment such as optical emission spectrometer, image analyzer, universal tensile testing machine etc
- Products are approved with many National and International agencies such as IRS, IBR, BIS, BHEL, NML etc



Note: There are safety hazards associated with welding operations. Please take all necessary precautions while carrying out the same.

MIG Machine

Spark MIG Wire

MIG welding wires are submerged arc welding wires and fluxes for welding mild and high tensile steels

SPARK MIG WIRE

Products	Specification	Classification
Spark MIG	ER 70S-6	AWS 5.17

SPARK MIG WIRE PACKAGING

Size	Weight	Packaging
0.8 mm	12.5 Kg & 15 Kg	Palette
1.0 mm	15 Kg & 17.5 Kg	Palette
1.2 mm	15 Kg & 17.5 Kg	Palette
1.2 mm	210 Kg & 100 Kg	Drum/Peel

Effective utilisation of MIG Welding Wire

- Ensure correct size contact tip is used
- Ensure that the liner of the welding gun is clean and free of copper flakes
- Ensure that wire feed setting is not too loose or tightly fitted
- Ensure that the flow of shielding gas is as per recommended parameters
- Clean the nozzle of the welding gun periodically, to remove spatter
- Cover the welding spool after use to prevent moisture and dirt pickup



Spark Welding Electrodes

- Electrodes for welding mild and low alloy steels include:
 1. Rutile electrodes for general purpose welding
 2. Low hydrogen electrodes for welding carbon-manganese medium
 3. High tensile and creep resisting steel
- Electrodes that prevents corrosion
- Electrodes for repair and maintenance includes welding of cast iron

MILD AND LOW ALLOY STEEL WELDING ELECTRODES

Products	Specification	Classification
Spark E6012	AWS A5.1	E 6012
Spark Bronze	AWS A5.1	E 6013
Spark E6013	AWS A5.1	E 6013
Spark Silver	AWS A5.1	E 6013
Spark Gold	AWS A5.1	E 6013
Spark E7016	AWS A5.1	E 7016
Spark Diamond	AWS A5.1	E 7018
Spark Platinum	AWS A5.1	E 7018-1
Spark 8018 G	AWS A5.5	E 8018 G
Spark 9018 G	AWS A5.5	E 9018 G
Spark 8018 B2	AWS A5.5	E8018 B2
Spark 9018 B3	AWS A5.5	E9018 B3

STAINLESS STEEL WELDING ELECTRODES

Products	Specification	Classification
Spark E307	AWS A5.4	E 307-16
Spark E308	AWS A5.4	E 308-16
Spark E308L	AWS A5.4	E 308L-16
Spark E309	AWS A5.4	E 309-16
Spark E309L	AWS A5.4	E 309L-16
Spark E309MO	AWS A5.4	E 309MO-16
Spark E310	AWS A5.4	E 310-16
Spark E316	AWS A5.4	E 316-16
Spark E316L	AWS A5.4	E 316L-16
Spark 1220 AS	AWS A5.4	E 312-16

REPAIR & MAINTENANCE WELDING ELECTRODES

Products	Specification	Classification
Spark HX350	AWS A5.13	EFe 2
Spark HX650B	AWS A5.13	EFe 3
Spark HX CRC	AWS A5.13	EFeCr A8
Spark HX Mn	AWS A5.13	EFeMn A
Spark Bell	NA	-
Spark CI70FN	AWS A5.15	ENiFe-CI



Do's & Don'ts for proper usage of Electrodes

Do's

- Re-dry rutile type E 6013 electrodes for 30 minutes at 100°C to get least spatter and smoke with good slag detach
- Re-dry low hydrogen type E 7018 electrodes at 250°C for 1 hour to ensure crack-free deposit with low Hydrogen level
- Use electrodes within their specified current to obtain best welding performance with defect free welds



Don't's

- Do not bend electrodes, as this may cause damage to the flux coating with resultant defects in the weld
- Do not use electrodes above the maximum specified currents as this will cause higher spatter and smoke and also lead to overheating of the electrode giving rise to weld defects such as porosities and slag inclusions

