

The **XUPER 680CGS Welding Electrodes** from **Metals And Welding Specialities** are engineered for superior performance in high-strength and wear-resistant welding applications. Designed to deliver exceptional bonding strength, these electrodes ensure long-lasting durability even under the most demanding industrial conditions. The **XUPER 680CGS** is classified under **UNS S30100** and corresponds to **ASTM A240 Grade 301**, a recognized standard in the stainless steel welding domain. Known for its toughness and corrosion resistance, this electrode meets the Universal Standard for hardfacing and maintenance welding of carbon and low-alloy steels.

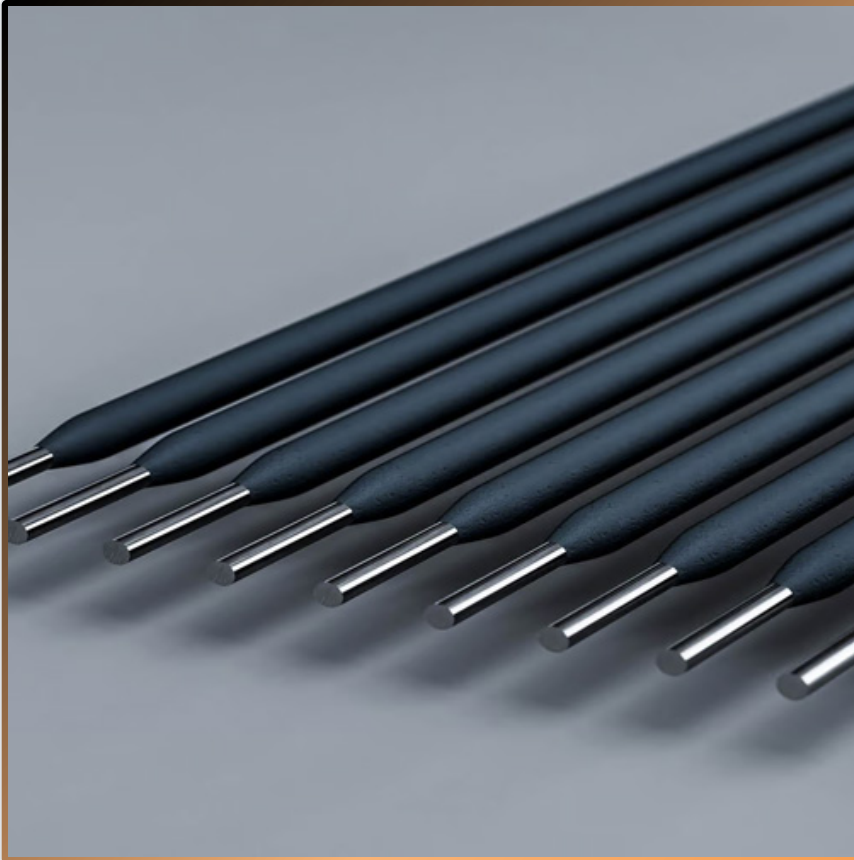


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With an advanced **coated electrode** composition, the XUPER 680CGS offers an outstanding combination of hardness, ductility, and tensile strength. The unique coating enhances arc stability and minimizes spatter, ensuring clean weld deposits and reduced post-weld finishing time. This makes it an ideal choice for repairing components exposed to abrasion, impact, and high mechanical stress. Industries such as mining, construction, heavy engineering, and manufacturing rely on these electrodes for the restoration and protection of critical parts including shafts, rollers, gears, and crusher components.



XUPER 680CGS Welding Electrodes, XUPER 680CGS Welding Electrodes Manufacturers, XUPER 680CGS Welding Electrodes Suppliers, XUPER 680CGS Welding Electrodes Stockists, XUPER 680CGS Welding Electrodes Exporters

The **XUPER 680CGS** provides smooth weldability in both flat and out-of-position welding, ensuring excellent bead appearance and minimal slag interference. Its strong metallurgical bond and controlled dilution deliver consistent results, reducing the risk of cracking and porosity. The electrode's microstructure provides a fine balance between toughness and hardness, making it suitable for applications that demand high resistance to metal-to-metal wear or erosion. The weld metal typically exhibits a hardness of around 55–60 HRC, providing long-term surface protection under severe wear conditions.

Engineered for versatility, the **XUPER 680CGS Welding Electrodes** can be used on a variety of base metals including low carbon steels, manganese steels, and alloy steels. The flux coating is formulated for easy slag removal, resulting in a cleaner weld surface and enhanced visual finish. Its low hydrogen content ensures reliable performance even in critical applications where cracking resistance is essential. Whether used for preventive maintenance or refurbishment of worn components, the XUPER 680CGS provides dependable results that extend equipment life and reduce downtime.



XUPER 680CGS Welding Electrodes in India, XUPER 680CGS Welding Electrodes Manufacturers in India, XUPER 680CGS Welding Electrodes Suppliers in India, XUPER 680CGS Welding Electrodes Stockists in India, XUPER 680CGS Welding Electrodes Exporters in India

Metals And Welding Specialities is committed to delivering welding consumables that combine innovation, performance, and reliability. The **XUPER 680CGS** embodies this commitment by offering a solution that meets international standards while providing superior mechanical integrity. When precision, endurance, and efficiency matter, professionals trust XUPER 680CGS for consistent, high-quality welds that stand the test of time.

Specification XUPER 680CGS Welding Electrodes



Parameter	Value
Tensile strength (Rm)	770 – 850 MPa
Yield strength (Rp0.2)	> 640 MPa
Elongation (A ₅ , l = 5d)	≥ 25 %
Hardness (as welded, HV30)	240 – 280 HV30
Deposit density	~ 7.6 g/cm ³
Effective yield (RE)	< 110 %
Linear expansion (20-300 °C)	~ 13.5 × 10 ⁻⁶ /K
Max service temperature (for joining)	< 450 °C (not for sub-zero)
Recommended current (A) by diameter	2.5 mm: 45-85 3.2 mm: 60-110 4.0 mm: 90-150 5.0 mm: 145-200

Max interpass temperature	300 °C
Polarity	DCEP (+) or AC

Equivalent Grade Of XUPER 68oCGS Welding Electrodes



Xuper	DIN Standard	AWS Classification	EN ISO	Werkstoff No.	UTP	Bohler	ESAB	Lincoln Electric	Thermanit
XUPER 680CGS	E Z 29 9	E312-16	E 29.9 R 1 2	1.4337	UTP 68 HC	FOX CN 29/9	OK 68.81	Wearshield ME	Thermanit 680

XUPER 68oCGS Welding Electrodes Parameters



Parameter	Value / Range
Current / Polarity	AC / DCEP (+)
Tensile Strength (typical)	88,000 psi (~ 607 MPa)
Hardness (as deposited)	HRB ~ 95
Hardness (after work-hardening)	~ HRC 30
Amperage – A Range (heavy / multipass)	1/8" (3.2 mm): 140 – 180 A 5/32" (4.0 mm): 180 – 250 A
Amperage – B Range (moderate)	1/8" (3.2 mm): 90 – 130 A 5/32" (4.0 mm): 120 – 160 A
Recommended Weave / Technique	Weaving limited to 1½ × electrode diameter
Maximum Preheat / Heat Limit	Do not heat 12 % Mn steel over 400 °F (204 °C)
Typical Hardness (alternative source)	As deposited: HRB 80–90 Work hardened: HRC 28–32

People Also Searched

XUPER 680CGS electrode specification, ASTM A240 Grade 301 welding rod, UNS S30100 electrode, stainless steel welding electrode 301, wear-resistant electrodes, hardfacing electrodes, coated electrode for alloy steel, stainless steel 301 UNS S30100, welding consumables ASTM A240, high strength electrodes, abrasion resistant welding rod, flux coated electrodes, stainless hardfacing rod, arc welding electrode 301, electrode for repair welding, low hydrogen coated electrode, steel repair electrode, hard surfacing electrode, stainless steel filler rod 301, manganese steel welding electrode, wear plate welding rod, corrosion resistant electrode, stainless steel maintenance welding, metal repair electrode, welding electrode supplier India, high tensile strength electrodes, UNS S30100 stainless steel properties, ASTM A240 301 composition, XUPER electrodes India, XUPER hardfacing consumables, welding rods for crusher parts, heavy machinery welding electrode, stainless electrode for fabrication, industrial welding materials, stainless steel welding consumables, high durability welding rod, electrode for structural repair, welding electrode manufacturer, maintenance welding electrode, and stainless steel electrode grade 301.

