

Royal 205 & Royal 205-TIG

Shielded Metal Arc Welding
(SMAW) Stick Electrode

Gas Tungsten Arc Welding
(GTAW) TIG Alloy

Carbon Steel



"The Royal Line"

CROWN ALLOYS COMPANY

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Premium Low Hydrogen Iron Powder Coated Electrode and Superior TIG Alloy for Problem Steels

Typical Applications

Royal 205 is excellent for **all position** welding of carbon steels, low alloy steels, enameling steels, and steels high in sulfur, phosphorus or other elements added to improve the machinability of the steel. Deposits have good ductility, are dense, crack-free and of x-ray quality. **Royal 205** will work on crack-sensitive steels where regular mild steel electrodes fail. Used for the fabrication of "H" and "I" beams, pipelines, angle and channel iron. Superior impact resistance at normal and sub-zero temperatures. **Royal 205** is also designed for tube to plate welds, and other joints subject to stress and strain.

Specifications

- Tensile Strength Up to 80,000 psi
- Yield Strength Up to 67,000 psi
- Elongation in 2" 28-32%

Procedure

Royal 205 (Stick Electrode)

Clean weld area thoroughly. Surface contamination must be removed and bevel or chamfer where required. Use **AC or direct current electrode positive (DCEP)**. Hold a short arc and use stringer beads for best penetration. Vertical joints should be welded from bottom up, using rapid weave technique. Do not whip. Use the drag technique to make horizontal fillet welds. Slag is easily removed.

Royal 205-TIG

Clean weld area thoroughly. Surface contamination must be removed and bevel or chamfer where required. Use **direct current electrode negative (DCEN)** with an argon shielding gas.

Sizes, Amps and Part Numbers

Royal 205 (Stick Electrode)

Diameter	Amps	Part Numbers	
		1# Package	5# Package
3/32	60 – 120	RE205/EN-BP	RE205/EN
1/8	100 – 150	RE205/EO-BP	RE205/EO
5/32	120 – 210	RE205/EP-BP	RE205/EP
3/16	200 – 275	RE205/EQ-BP	RE205/EQ

Royal 205-TIG

Diameter	Amps	Part Numbers	
		1# Package	5# Package
.045	60 – 100	RT205/TG-BP	RT205/TG
1/16	70 – 130	RT205/TL-BP	RT205/TL
3/32	110 – 185	RT205/TN-BP	RT205/TN
1/8	140 – 225	RT205/TO-BP	RT205/TO



!!!! WARNING !!!!



WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.

BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND THE NEW 16 SECTION SAFETY DATA SHEET (SDS).

THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.

DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.

BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.

SEE THE PRODUCT WARNING LABEL AND SDS FOR COMPLETE WARNING INFORMATION.

