

# ROYAL 70 S - 3

## TECHNICAL DATA

- **DESCRIPTION :-** Royal – 70S-3 wire is a copper coated solid wire for Co2 welding for general engineering and structural application. It gives spatter free welding with Co2 gas and Ar+Co2 gas mixtures. The weld deposit is free from porosities with smooth and uniform weld bead.
- **CLASSIFICATION :-** AWS : A 5.1 8 ER 70S-3  
IS – 6419
- **PROCEDURE :-** Suitable for welding of structural steel with tensile strength up to 540N/mm<sup>2</sup>, welding of automobile bodies, bridges ship containers railway rolling stock, bogies, storage tanks and general structural fabrication works.
- **WELDING CURRENT D.C. (+) :-**

WIRE	CURRENT Amps	VOLTS	GAS FLOW L/M
1.60 x 1000 mm	150 - 200	22 - 26	10 - 25
2.00 x 1000 mm	200 - 250	24 - 32	12 - 20
2.40 x 1000 mm	250 - 300	26 - 36	15 - 25
3.20 x 1000 mm	250 - 300	28 - 38	16 - 28

- **TYPICAL CHEMICAL ANALYSIS OF WIRE (%) :-**

C	Mn	Si	S	P	Cr
0.06 - 0.14	0.90 - 1.30	0.50 - 0.80	0.025 Max	0.025 Max	0.15 Max
Ni	Mo	V	Cu	Ti + Zr	Al
0.15 Max	0.15 Max	0.03 Max	0.35 Max	0.15 Max	0.020 Max

- **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL :-**

YIELD STRESS (0.2% Offset)	420 N/mm <sup>2</sup> Min
U.T.S.	500 - 640 N/mm <sup>2</sup>
ELONGATION % (L=5d)	20 % Min
CVN IMPACT AT - Minus 40oC	47 Joules Min

- **PACKING SPECIFICATION :-** Each Packets content 5 kg of Wire Rods having length 1000mm.

Manufactured in India By :  
**ROYAL ARC ELECTRODES LIMITED.**  
ISO : 9001 - 2008 Certified Company