



# MODI DUEX-1

## DUPLEX STAINLESS STEEL ELECTRODE

**CLASSIFICATION :** **AWS/A 5.4 : E 2209-17**

**CHARACTERISTICS :** Modi Duex-1 is a rutile flux coated electrode which deposits typically 23% Cr, 10% Ni, 3% Mo and 0.16% N<sub>2</sub>. The weld metal structure is an austenitic ferrite duplex stainless steel with ferrite content about 35%. This specially designed electrode is suitable for welding similar composition of duplex stainless steels. The electrode offers excellent combination of high strength and very good resistance to chloride induced pitting and stress corrosion cracking.

**APPLICATIONS :**

- \* Off-shore platform pipe works.
- \* Pipelines transporting chloride bearing products or sour gases.
- \* Process vessels for chloride environments.
- \* Pump casing and impeller casing welding, which is used in chemical environment.

**RECOMMENDATIONS :** To obtain best results, use short arc, lower current, stringer bead technique and maintain proper inter-pass temperature to get the phase balance.

CHEMICAL ANALYSIS OF WELD-METAL(%) :	C	Cr	Ni	Mn	Si
	0.04 max	21.5-23.5	8.5-10.5	0.5-2.0	1.0 max
	S	P	Mo	N	Cu
	0.03 max	0.04 max	2.5-3.5	0.08-0.20	0.75 max

MECHANICAL PROPERTIES OF ALL WELD-METAL (AS PER AWS/A 5.4) (TYPICAL) :	Ultimate Tensile Strength N/mm <sup>2</sup>	Elongation (GL=4d) (%)
	690 min	20 min

**CURRENT CONDITIONS : USE AC OR DC (+)**

Size (mm)	2.5x350	3.15x350	4.0x350	5.0x350
Amps	60-80	80-110	110-140	150-180



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