MODI - 9018 B3

LOW HYDROGEN ELECTRODE

CLASSIFICATION :

IS : 1395-82 : E 63 B-B3-26 Fe
AWS/A 5.5 : E 9018 B3

APPROVALS :

CIB (UP)	PDIL	DNV	DES
BHEL	EIL	NTPC	LANCO

CHARACTERISTICS :

It is a low hydrogen electrode yielding a deposit of 2.25%Cr and 1% Mo. The coating is especially formulated to resist moisture pick-up under condition of high heat and humidity. Due to resistance to moisture reabsorption, hydrogen cracking and starting porosities are avoided. The welds are of radiographic quality, excellent strength and creep resistance at elevated temperature upto 550°C.

APPLICATIONS :

* Welding of 2 ¼ Cr 1% Mo, Creep resistance steels, Cr-Mo and Cr-Mo-V steels.
* Steam Boiler
* Steam & Superheater Piping
* Power Plants
* Oil Refinery
* Chemical Plants

RECOMMENDATIONS :

Re-dry the electrodes at 350°C for one hour or at 250°C for two hours. Keep the redried electrodes in holding oven having 120°C-150°C temperature. Use the electrode directly from the holding oven. The pre-heat and interpass temperature should be maintained at 160°C-190°C. The welded section has to be stress relieved at 690°C for at least one hour.

CHEMICAL ANALYSIS OF WELD-METAL(%) :

C	Mn	Si	Cr	Mo	S	P
0.05-0.12	0.90 max	0.80 max	2.0-2.5	0.90-1.20	0.03 max	0.03 max

MECHANICAL PROPERTIES OF ALL WELD-METAL (AS PER AWS/A 5.5) :

Yield Strength Kg/mm²	Ultimate Tensile Strength Kg/mm²	Elongation EL (%)
550-600	640-700	18-24

CURRENT CONDITIONS : USE DC (+) OR AC (70V)

Size (mm)	2.5x350	3.15x450	4.0x450	5.0x450	6.3x450
Amps	70-100	100-140	140-180	180-220	240-280

ISO 9001 REGISTERED
DNV
MGMT. SYS.
RvA C 024
DNV Certificate B.V., The Netherlands

MODI ARC ELECTRODES CO.
Modinagar - 201 204 (U.P.)
Fax : 01232 - 242147
Phone : (01232) 325700, 325925, 243912
E-mail : modiarc@ndb.vsnl.net.in
Web Site : www.modielectrodes.com

MODI - 9018 B3L

LOW HYDROGEN ELECTRODES

CLASSIFICATION :

IS : 1395-82 : E 63B-B3L-26Fe
AWS/A 5.5 : E 8018 B3L

CHARACTERISTICS :

It is a low hydrogen electrode yielding a deposit of 2.25%Cr and 1% Mo. The coating is especially formulated to resist moisture pick-up under condition of high heat and humidity. Due to resistance to moisture absorption, hydrogen cracking and starting porosities are avoided. The welds are of radiographic quality, excellent strength and creep resistance at elevated temperature upto 600°C. Due to extra low carbon, it has improved micro-structure & stability during high temperature service.

APPLICATIONS :

* Welding of 2 ¼ Cr 1% Mo, Creep resistance steels, Cr-Mo and Cr-Mo-V steels.
* Steam Boilers
* Steam & Superheater Piping
* Power Plants
* Oil Refinery
* Chemical Plants

RECOMMENDATIONS :

Re-dry the electrodes at 350°C for one hour. Keep the redried electrodes in holding oven having 120°C-150°C temperature. Use the electrodes directly from the holding oven. The pre-heat and interpass temperature should be maintained at 160°C-190°C. The welded section has to be stress relieved at 690°C for at least one hour.

CHEMICAL ANALYSIS OF WELD-METAL(%) :

C	Mn	Si	Cr	Mo	S	P
0.05max	0.90max	0.80max	2.0-2.5	0.90-1.20	0.04max	0.03max

MECHANICAL PROPERTIES OF ALL WELD-METAL (AS PER AWS/ A 5.5) AFTER S/R AT 690°C :

Yield Stress N/mm²	Ultimate Tensile Strength N/mm²	Elongation (%)
500-560	560-660	18-24

CURRENT CONDITIONS : USE DC (+) OR AC (70V)

Size (mm)	2.5x350	3.15x450	4.0x450	5.0x450	6.3x450
Amps	70-100	100-140	140-180	180-220	240-280

ISO 9001 REGISTERED
DNV
MGMT. SYS.
RvA C 024
DNV Certificate B.V., The Netherlands

MODI ARC ELECTRODES CO.
Modinagar - 201 204 (U.P.)
Fax : 01232 - 242147
Phone : (01232) 325700, 325925, 243912
E-mail : modiarc@ndb.vsnl.net.in
Web Site : www.modielectrodes.com

MODI - 9018 B3H

LOW HYDROGEN ELECTRODE

CLASSIFICATION : **AWS/A 5.5 : E 9018-B3**

APPROVALS: BHEL, Hardwar

CHARACTERISTICS : A low hydrogen low alloy steel electrode yielding a deposit of 2.25%Cr, 1% Mo and 0.12%C. The coating is especially formulated to resist moisture pick-up under high humidity. Due to resistance to moisture re-absorption, hydrogen cracking and starting porosities are avoided. The welds are of radiographic quality. Excellent strength coupled with high creep resistance at elevated temperature upto 600°C are special features.

APPLICATIONS :

* Welding of 2 ¼Cr-1Mo, Creep Resistant Steels, Cr-Mo and Cr-Mo-V Steels.
* Steam Boiler
* Steam & Superheater Piping
* Power Plants Equipments
* Oil Refineries
* Chemical Plants

RECOMMENDATIONS : Re-dry the electrode at 350°C for one hour or at 250°C for two hours. Keep the redried electrodes in holding oven having 120°C-150°C temperature. Use the electrode directly from the holding oven. The pre-heat and interpass temperature should be maintained at 160°C-190°C. The weldment has to be stress relieved at 660°C for at least one hour or as per the relevant code of fabrication.

CHEMICAL ANALYSIS OF WELD-METAL(%) :

C	Mn	Si	Cr	Mo	S	P
0.10-0.15	1.20 max	0.50 max	2.0-2.5	0.9-1.3	0.02 max	0.02 max

MECHANICAL PROPERTIES OF ALL WELD-METAL (AS PER AWS/A 5.5) :

Yield Strength N/mm²	Ultimate Tensile Strength N/mm²	Elongation (%)	CVN Impact Values(min) at +20°C Joules
450 min.	600 min.	18 min.	40

CURRENT CONDITIONS : USE AC OR DC (+)

Size (mm)	2.5x350	3.15x350	4.0x450	5.0x450	6.3x450
Amps	70-100	100-140	140-180	180-220	240-280

ISO 9001 REGISTERED
DNV
MGMT. SYS.
RvA C 024
DNV Certificate B.V., The Netherlands

MODI ARC ELECTRODES CO.
Modinagar - 201 204 (U.P.)
Fax : 01232 - 242147
Phone : (01232) 325700, 325925, 243912
E-mail : modiarc@ndb.vsnl.net.in
Web Site : www.modielectrodes.com