

# ESAB 28

# A rutile coated radiography quality electrode for MMAW

Classification AWS A5.1 : E 6013

IS 814 : ER 4212X

## **DESCRIPTION**

ESAB 28 is a medium heavy rutile coated mild steel electrode designed for welding of unalloyed structural steels in all positions. The electrode gives smooth radiographic quality weld with low spatter and smoke. Bead shape is uniform and finely rippled and slag is self removal type.

## **APPROVALS**

ABS Gr.2, BIS, BV Gr.2, CIB, DNV Gr.2, TEIL, IRS Gr.2, LRS Gr.2, MMD, NPC, PDIL.

WELDING CURRENT: DC (+), AC 50V

#### **TYPICAL APPLICATIONS**

It is recommended for welding structures of varying thickness of MS plates in different type of joints and welding ordinary grade ship steel as well as structural steel of similar strength and composition. Suitable for welding of pipes, bridges, boilers and pressure vessels storage tanks, etc.

#### TYPICAL ALL WELDMETAL PROPERTIES

Chemical Composition (%)		Mechanical Properties	
С	0.08	YS	430 N/mm <sup>2</sup>
Si	0.24	UTS	500 N/mm <sup>2</sup>
Р	0.02	EL	26%
Mn	0.45	Impact (CVN) at 0°C	90J
S	0.02		

## **CURRENT RANGE & PACKING DATA**

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	60-85	190	760
3.15	350	85-120	120	480
3.15	450	85-120	120	480
4.00	350	120-175	75	300
4.00	450	120-160	75	300
5.00	450	160-240	50	200

**PACKING:** Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box.

# **ESAB VORDIAN**

# A rutile coated high productivity electrode for MMAW

Classification AWS A5.1: E 6013

IS 814 : ERR 4221X

### **DESCRIPTION**

ESAB VORDIAN is an all position medium heavy rutile coated mild steel welding electrode of outstanding quality permitting use of low open circuit voltages. Since it can be touch welded, very little skill is required in obtaining quality welds. ESAB VORDIAN is extremely suitable for flat and horizontal-vertical position as well as for vertical and overhead welding. Excellent welding performance and mechanical properties with radiographic soundness is easily achievable. ESAB VORDIAN is also suitable for pipe welding jobs.

# **APPROVALS**

ABSGr.2, BIS, BV Gr.2, CIB, DNV Gr.2, TEIL, IRS Gr.2, LRS Gr.2, MMD, NPC, RDSO C2, BHEL.

WELDING CURRENT: DC(±), AC 50V

## **TYPICAL APPLICATIONS**

ESAB VORDIAN is recommended for applications such as boiler and pressure vessels, bogies and under

frame of railway carriages and wagons, bridges and dam construction, cranes, machine building, plate and sheet metal fabrication, ship construction, framework, tankages, pipes, etc.

## **TYPICAL ALL WELDMETAL PROPERTIES**

Chemical Composition (%)		Mechanical Properties	
C Si P Mn S	0.07 0.22 0.02 0.42 0.02	YS UTS EL Impact (CVN) at 0°C	410 N/mm² 490 N/mm² 26% 90J

### **CURRENT RANGE & PACKING DATA**

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	50 <b>-</b> 105	160	640
3.15	350	85-130	110	440
3.15	450	85-130	110	440
4.00	450	130-180	75	300
5.00	450	160-240	50	200

**PACKING:** Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box.