



## ESAB 28

### A rutile coated all-round electrode for SMAW

Classification AWS A5.1: E6013  
IS 814: ER4212X

#### 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. Slag is self detachable and the bead shape is uniform and finely rippled.

**APPROVALS:** ABS, BV, DNV, IBR, IRS, LRS, MMD, NPC, PDIL & TOYO

**WELDING CURRENT:** DC $\pm$ , AC 50V

#### TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties	
C	0.08	YS (N/mm <sup>2</sup> )	420
Si	0.25	UTS (N/mm <sup>2</sup> )	510
Mn	0.35	Elongation (%)	28
		Impact (CVN) @ 0°C (Joules)	90

#### CURRENT RANGE & PACKING DATA

Size (mm)	Length (mm)	Current Range (Amps)	No. of Electrodes in a	
			Carton	Cardboard box
2.50	350	50-80	190	760
3.15	350	60-130	120	480
3.15	450	60-120	120	480
4.00	450	90-170	75	300
5.00	450	130-260	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 SMAW

Classification AWS A5.1: E6013  
IS 814: ERR4221X

#### DESCRIPTION

ESAB VORDIAN is an all position medium heavy rutile coated mild steel welding electrode of outstanding quality permitting the use of low open circuit voltages. ESAB VORDIAN is extremely suitable for flat and horizontal-vertical positions, as well as for vertical and overhead welding.

**APPROVALS:** ABS, BV, DNV, IBR, IRS, LRS, MMD & TOYO

**WELDING CURRENT:** DC $\pm$ , AC 50V

#### TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties	
C	0.07	YS (N/mm <sup>2</sup> )	430
Si	0.20	UTS (N/mm <sup>2</sup> )	490
Mn	0.35	Elongation (%)	29
		Impact (CVN) @ 0°C (Joules)	90

#### CURRENT RANGE & PACKING DATA

Size (mm)	Length (mm)	Current Range (Amps)	No. of Electrodes in a	
			Carton	Cardboard box
2.50	350	50-80	160	640
3.15	350	60-130	110	440
3.15	450	60-110	110	440
4.00	450	90-170	75	300
5.00	450	130-240	50	200

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



# ESAB FERROAMB

A rutile based general purpose mild steel electrode for Manual Metal Arc Welding

**Classification:** AWS A5.1 E6013

**Welding Current:** DC±, AC 50V



## Description

ESAB FERROAMB is a rutile coated general purpose mild steel electrode. It provides sound quality weld deposit with stable arc and good slag release. The electrode is suitable for all positional welding of plates and pipes.

All Weld Metal Chemical Composition (%)		All Weld Metal Mechanical Properties	
C	0.08	YS (MPa)	430
Si	0.25	UTS (MPa)	520
Mn	0.30	Elongation (%)	27
S	0.025		
P	0.025		

## Applications

- General Fabrication
- Frame Work
- Tankages

- General purpose electrode
- Smooth running characteristics
- Good slag release
- Good weld bead appearance

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## ESAB FERROSPEED

A rutile coated general-purpose electrode for SMAW

Classification AWS A5.1: E6012  
IS 814: ER4124

### DESCRIPTION

ESAB FERROSPEED is a rutile-coated general-purpose electrode for welding structures that are not subjected to heavy dynamic loading and is specially designed for higher tolerance to less cleaned plates and poor joint fit-ups. The electrode has high current carrying capacity and produces quality weld metal.

**APPROVALS:** ABS, BV, DNV, IBR, IRS, LRS & MMD

**WELDING CURRENT:** DC<sub>±</sub>, AC 70V

### TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties	
C	0.08	YS (N/mm <sup>2</sup> )	430
Si	0.20	UTS (N/mm <sup>2</sup> )	520
Mn	0.35	Elongation (%)	25
		Impact (CVN) @ +20°C (Joules)	70

### CURRENT RANGE & PACKING DATA

Size (mm)	Length (mm)	Current Range (Amps)	No. of Electrodes in a	
			Carton	Cardboard box
3.15	450	95-150	150	600
4.00	450	140-190	100	400
5.00	450	180-260	65	260

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

## ESAB FERROARC

A rutile coated general-purpose electrode for SMAW

Classification AWS A5.1: E6013  
IS 814: ER4211X

### DESCRIPTION

ESAB FERROARC is a medium coated general purpose mild steel electrode, which operates on low OCV (50V) AC in all positions. ESAB FERROARC delivers smooth and stable welding arc with low spatter, excellent slag detachability and smooth weld bead appearance. The weld deposit is of radiographic quality.

**APPROVALS:** ABS, BV, DNV, IBR, IRS, LRS, MMD, MN Dastur & TOYO

**WELDING CURRENT:** DC<sub>±</sub>, AC 50V

### TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties	
C	0.08	YS (N/mm <sup>2</sup> )	430
Si	0.20	UTS (N/mm <sup>2</sup> )	500
Mn	0.35	Elongation (%)	26
		Impact (CVN) @ 0°C (Joules)	80

### CURRENT RANGE & PACKING DATA

Size (mm)	Length (mm)	Current Range (Amps)	No. of Electrodes in a	
			Carton	Cardboard box
2.50	350	50-80	300	900
3.15	350	60-120	190	570
3.15	450	60-110	185	555
4.00	450	90-170	125	375
5.00	450	130-280	85	255

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



## ESAB FERROSPEED PLUS

A rutile coated all-round electrode for SMAW

Classification AWS A5.1: E6013  
IS 814: ER4211X

### DESCRIPTION

ESAB FERROSPEED PLUS is a medium-heavy coated mild steel welding electrode for all positions, having good mechanical properties and arc characteristics. ESAB FERROSPEED PLUS operates on low open circuit voltage and its good running characteristics results in excellent weld finish of radiographic quality. ESAB FERROSPEED PLUS is also known for its superior V-down welding capabilities.

**APPROVALS:** ABS, BV, DNV, IBR, IRS, LRS, MMD, MN Dastur, PDIL & TOYO

**WELDING CURRENT:** DC $\pm$ , AC 50V

### TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties	
C	0.08	YS (N/mm <sup>2</sup> )	400
Si	0.18	UTS (N/mm <sup>2</sup> )	500
Mn	0.30	Elongation (%)	27
		Impact (CVN) @ 0°C (Joules)	80

### CURRENT RANGE & PACKING DATA

Size (mm)	Length (mm)	Current Range (Amps)	No. of Electrodes in a	
			Carton	Cardboard Box
2.5	350	50-85	190/265	760/795
3.15	350	60-120	140/195	560/585
3.15	450	60-110	140/190	560/570
4.00	450	80-180	85/115	340/345
5.00	450	100-235	55/75	220/225

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

## ESAB VORTIC

A rutile coated general-purpose electrode for SMAW

Classification AWS A5.1: E6013  
IS 814: ER4224X

### DESCRIPTION

ESAB VORTIC is a medium coated general purpose mild steel electrode, especially designed for use in vertical and over head positions. This is a rutile coated electrode, with fast freezing slag and excellent slag detachability even in deep grooves.

**APPROVALS:** IBR, IRS, LRS & MMD

**WELDING CURRENT:** DC $\pm$ , AC 70V

### TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties	
C	0.07	YS (N/mm <sup>2</sup> )	430
Si	0.18	UTS (N/mm <sup>2</sup> )	470
Mn	0.40	Elongation (%)	25
		Impact (CVN) @ 0°C (Joules)	70

### CURRENT RANGE & PACKING DATA

Size (mm)	Length (mm)	Current Range (Amps)	No. of Electrodes in a	
			Carton	Cardboard box
2.50	350	40-100	185	740
3.15	450	100-125	125	500
4.00	450	135-175	90	360
5.00	450	150-260	60	240

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