

# AS SD-MANGAN 165



## Coated Electrode for Overlay Welding and Hardfacing

### Classification

DIN 8555 : E7-UM-200 K  
EN 14700 : E Fe9  
AWS A5.13 : E FeMn-A

### General Description

AS SD-MANGAN 165 is a zircon-basic coated electrode. It gives an austenitic Hadfield Manganese steel type weld metal with 13 % Mn content. 3.5 % Ni content increases the ductility and impact properties. Soft weld metal has a low resistance to abrasion after the application; but it hardens rapidly when cold worked or subject to gritty abrasion. It has about 165 % metal recovery.

### Chemical Composition (w%), Typical, All Weld Metal

C	Si	Mn	Ni
0.70	0.10	14	3.5

### Mechanical Properties, Typical, All Weld Metal

Hardness : 175 - 200 HB (as welded)  
450 HB (after cold working)

### Approvals

GOST, SEPRO, TSE

### Applications

It is used for the surfacing and reclamation of austenitic 12-14 % Mn-steels and joining of these to mild or medium carbon steels. Teeth used for mineral handling, cone, roll and jaw crushers, crushing and grinding hammers, screens and grid bars and parts exposing to impact can be hardsurfaced with AS SD-MANGAN 165.

Especially on 12-14 % Mn-steels, it is important to use this electrode before using chromium carbide structured hardfacing electrodes to form a buffer layer as it enables a healthy joining of the subsequent hardsurface to the base metal.

#### Attention!

As % 12-14 Mn containing weld metal has poor corrosion resistance, its properties are similar to carbon steels.

### Welding Parameters / Packing and Diameter Informations / Welding Positions

Current Type and Polarity : DC (+) ; AC min 70 V

Diameter [ mm ]	Length [ mm ]	Current [ A ]	Electrode Weight [ g/100 pcs ]	Box Weight [ kg ] Quantity [ pcs/box ]	Export Box Box Weight [ kg ]
2.50	350	70 - 100	3050	4.6 / 150	5
3.25	350	100 - 150	5350	4.8 / 90	5
4.00	450	150 - 185	10500	5.8 / 55	6
5.00	450	200 - 240	15720	5.5 / 35	6



1G/PA



2F/PB