

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 is a basic coated electrode. It gives an austenitic Hadfield Manganese steel type weld metal with 13 % Mn content. 3 % 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.

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

C	Si	Mn	Ni
0.70	0.10	14	3

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.

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]
3.25	350	80 - 140	3810	5.3 / 140	5
4.00	450	140 - 180	7440	6.7 / 90	6
5.00	450	180 - 230	11610	6.4 / 55	6



1G/PA



2F/PB



2G/PC