OK 13Mn

OK 13Mn is an austenitic manganese steel electrode which work hardens under impact and compressive stresses. It is primarily used for surfacing and building up manganese steel components exposed to severe impact and moderate abrasion. Typical applications include crusher plates and rolls, cones and mantles of rotary crushers etc. The interpass temperature should be kept as low as possible.

Specifications

Classifications	EN 14700 : E Fe9

Alloy Type	Austenitic Mn steel
Coating Type	Lime Basic
Welding Current	AC, DC+

Tensile_Properties			
Testing Condition	**Yield Strength**	**Tensile Strength**	**Elongation**
ISO			
As Welded	480 MPa (70 ksi)	780 MPa (113 ksi)	20 %

Charpy Testing		
Testing Condition	**Testing Temp**	**Impact Value**
ISO		
As Welded	-20 °C (-4 °F)	45 J (33 ft-lb)
As Welded	20 °C (68 °F)	70 J (52 ft-lb)
As Welded	-40 °C (-40 °F)	35 J (26 ft-lb)
As Welded	-60 °C (-76 °F)	25 J (19 ft-lb)

Analysis

C	Si	Mn
Typical Weld Metal Analysis %		
1.08	0.7	12.2

Deposition Data						
Deposition rate at 90Per	**Diameter**	**Amps**	**Efficiency (Per)**	**Volts**	**Fusion time per electrode at 90Per I max**	**Number of electrodes /kg weld metal**
1.1 kg/h (2.4 lbs/h)	3.2 x 450.0 mm (1/8 x 17.7 in.)	95-135 A	60 %	23 V	95 sec	36
1.4 kg/h (3.1 lbs/h)	4.0 x 450.0 mm (5/32 x 17.7 in.)	130-180 A	60 %	23 V	109 sec	24
1.8 kg/h (4.0 lbs/h)	5.0 x 450.0 mm (0.197 x 17.7 in.)	170-230 A	60 %	25 V	132 sec	15