


HB 14 Mn AC/DC±
BUILD-UP
DESCRIPTION

Rutile-basic coated electrode, destined to surface all pieces subject to high impact. Sometimes used for 13 % Mn-steel assembling (Hadfield steels). Frequently used as cushion layer before hardfacing in case of heavy reclaiming. Allows to build-up and then to apply abrasion resistant final layers, 1 or 2, using Selectarc HB 63. The deposit is austenitic and is exceptionally resistant to impact and wear combined with impact. The hardness of the deposit is about 20 - 25 HRC as welded and 43 - 52 HRC after work hardening. The alloyed Ni and Cr increase the resistance against cracks and abrasion. Deposits can be flame cut.

CLASSIFICATION

AWS A5.13 : ~EFeMn-C

DIN 8555 : E7-UM-250-KP

EN 14700 : E Fe9

TOTAL ALLOY CONTENT: 18 % (Carbon, Silicon, Manganese, Chromium, Nickel)

TYPICAL APPLICATIONS

Repairing of used pieces or preventive protection of new pieces used in railway applications (rails, switches, crossings, tongues) in quarries and mines (crusher jaws, excavator and grab teeth, mill hammers, rock crusher).

PROCEDURE

Redrying, if necessary, 1h/300°C. Weld with a minimum heat input (low current, short beads) in order to respect an interpass temperature of 250°C maximum. Do not preheat the piece to weld!

MECHANICAL PROPERTIES

Tensile strength:	120 000 psi (827 MPa)	
Hardness (as-welded):	20 - 25 HRC	Work hardening: 43 - 52 HRC
Deposit thickness:	Unlimited	

WELDING PARAMETERS

Diameter:	5.0 mm (3/16")	4.0 mm (5/32")	3.2 mm (1/8")
Amperage:	200 A	160 A	120 A

WELDING POSITIONS


1G/PA



2F/PB



2G/PC

 Flux-cored wire also available: **Selectarc FC 14 Mn**

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