

## Exaton 22.12.HTR



22.12.HTR is a covered electrode with rutile-acid coating and about 110% metal recovery. It gives a chromium-nickel weld metal that is scaling resistant in air up to 1150°C (2102°F). Spray transfer gives a bead with a finely rippled surface. There is little spatter and very good slag removal.

22.12.HTR is intended primarily for welding the high temperature steels Sandvik 253MA (1) and Avesta 253MA, UNS S30815. It is also suitable for welding other high temperature steels, such as AISI 309 and EN 1.4828.

(1): 253MA is a trademark owned by Outokumpu Stainless.

<b>Classifications</b>	EN ISO 3581-A : E Z 23 10 N R 12
<b>Approvals</b>	CE

Approvals are based on factory location. Please contact ESAB for more information.

<b>Welding Current</b>	AC, DC+
<b>Ferrite Content</b>	FN 4- 10
<b>Alloy Type</b>	CrNi stainless
<b>Coating Type</b>	Rutile

### Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
<b>ISO</b>			
As Welded	540 MPa (78 ksi)	720 MPa (104 ksi)	35 %

### Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
<b>ISO</b>		
As Welded	20 °C (68 °F)	55 J (41 ft-lb)

### Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	N	Ferrite FN
0.06	0.5	1.5	<=0.03	<=0.03	10.5	22	0.16	5

### Deposition Data

Diameter	Current	Voltage	Number of electrodes/ kg weld metal	Burn-off Time/ Electrode	Deposition Efficiency %	Deposition Rate @ 90% I max
2.5 x 300.0 mm (0.098 x 11.8 in.)	50-90 A	26 V	104	44 sec	55 %	0.8 kg/h (1.8 lb/h)
3.2 x 350.0 mm (1/8 x 13.8 in.)	70-110 A	25 V	54	66 sec	55 %	1.0 kg/h (2.2 lb/h)
4.0 x 350.0 mm (5/32 x 13.8 in.)	85-150 A	26 V	35	77 sec	56 %	1.3 kg/h (2.9 lb/h)