

## 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 253MA (1) 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.

Specifications	
Classifications	EN ISO 3581-A : E Z 23 10 N R 12
Approvals	CE : EN 13479 UKCA : EN 13479

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

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

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
ISO			
As Welded	540 MPa ( 78 ksi )	720 MPa ( 104 ksi )	35 %

Typical Charpy V-Notch Properties		
Condition	Testing Temperature	Impact Value
ISO		
As Welded	20 °C ( 68 °F )	55 J ( 41 ft-lb )

Typical Weld Metal Analysis %									
C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
0.06	6	1.5	0.007	0.021	10.5	23	0.14	0.08	0.16

Typical Weld Metal Analysis %	
FN WRC-92	PREN
6	25

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