

## Classification

**AWS A5.4**

E2209-17

## Characteristics and typical fields of application

Cr, Ni Mo alloyed duplex electrode for welding duplex steel such as 2205. For light to moderate thickness material, welding should be carried out as for ordinary austenitic stainless steel. However the somewhat lower penetration and fluidity of the weld should be considered. Very high quench rate and excessive time at red heat or above should be avoided to prevent excessive ferrite or formation of intermetallic phases.

## Base Materials

Outokumpu 2205; EN 1.462; ASTM S32205; BS 318S13; NF Z3 CND 22-05 Az; SS 2377

## Typical analysis of all weld metal (wt.-%)

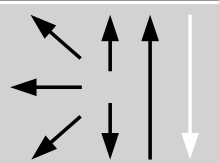
C	Si	Mn	Cr	Ni	Mo	N
0.025	0.87	0.63	22.94	9.57	2.89	0.15

Ferrite Number  $\approx$  50 FN WRC92

## Mechanical properties of all-weld metal

Heat treatment	Yield strength $R_e$ N/mm <sup>2</sup>	Tensile strength $R_m$ N/mm <sup>2</sup>	Elongation ( $L_0=5d_0$ )	Impact work ISO-V KV J	
	MPa	MPa	%	+ 20 °C	-40°C
Min. AWS A5.4	-	690	20	-	-
As Welded	685	850	26	38	31

## Operating data



**Polarity**  
DCEP / AC

Heat Input: 0.5 – 2.5 kJ/mm  
Interpass temperature: Max. 150°C  
Scaling Temperature : Approx. 850°C  
Instruction for Re-drying: Re-dry for 3 h at 250-280°C before using

## Approvals

ABS

## Size, Packaging and Electrical Operating Data

Size mm	Kg / Pack	Kg / Box	Amperage (A)
2.50 x 350	4.10	12.30	45-80
3.25 x 350	4.10	12.30	70-120
4.00 x 450	5.40	16.20	90-160
5.00 x 450	5.40	16.20	150-220