

Classifications

EN 1600	AWS A5.4
E 22 9 3 N L B	E2209-15

Characteristics and field of use

UTP 2205 basic provides somewhat better impact properties and position welding properties than the UTP 2205. It is primarily designed for welding duplex steel of the 2205 type but can also be used for the welding of 2304. The weldability of duplex steels is excellent. However, welding should be adapted to the material as far as fluidity, edge preparation, heat input etc. are concerned.

Interpass temperature:	Max. 150°C.
Heat input:	0.5 – 2.5 kJ/mm
Heat treatment:	Generally none. (in special cases quench annealing at 1100 – 1150°C)
Structure:	Duplex (austenite with approx. 40 % ferrite).
Scaling temperature:	Approx. 850°C (air).
Corrosion resistance:	Very good resistance to pitting and stress corrosion cracking in chloride containing environments.
Weld deposit data:	Metal recovery approx. 110 %.

Typical analysis in %

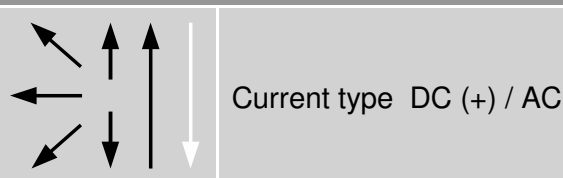
C	Si	Mn	Cr	Ni	Mo	N
0,03	0,5	1,2	23,5	9,0	3,0	0,16

Ferrite 40 FN WRC-92

Mechanical properties of the weld metal

Values	Yield strength R _{PO,2}	Tensile strength R _m	Elongation A	Impact strength K _v			Hardness Brinell
	MPa	MPa	%	J	-46 °C	-60 °C	
typical (IIW)	645	840	26	100	80	50	approx. 240
min. (EN 1600)	450	550	20				

Welding positions



Recommended welding parameters

Electrodes Ø x L [mm]	2,5 x 300	3,2 x 350	4,0 x 350
Amperage [A]	45 – 70	55 – 110	100 – 140