

## Classifications

<b>EN ISO 3581-A</b>	<b>AWS A5.4</b>
E 22 9 3 N L B	E2209-15

## Characteristics and typical fields of application

Basic coated electrode of E 22 9 3 N L B / E2209-15 type. Primarily designed for welding 22Cr duplex stainless steels used in offshore, shipyards, chemical tankers, chemical/petrochemical, pulp & paper, etc.

For welding in all positions. For improved impact toughness. Very good resistance to pitting and stress corrosion cracking in chloride containing environments. PREN > 35.

Duplex alloys have good weldability, but the welding procedure should be adapted to the base material considering fluidity, joint design, heat input, etc.

## Base materials

1.4462 X2CrNiMoN22-5-3, 1.4362 X2CrNiN23-4, 1.4162 X2CrNiMoN21-5-1  
UNS S32205, S31803, S32304, S32101  
2205, 2304, LDX 2101<sup>®</sup>, SAF 2205, SAF 2304

## Typical analysis of all-weld metal

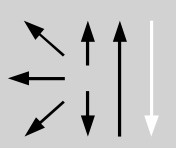
	C	Si	Mn	Cr	Ni	Mo	N
wt.-%	0.03	0.6	1.2	23.1	8.9	3.0	0.16

## Mechanical properties of all-weld metal – typical values (min. values)

Condition	Yield strength R <sub>p0.2</sub>	Tensile strength R <sub>m</sub>	Elongation (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J		Hardness
	MPa	MPa	%	20°C	-46°C	
u	<b>620</b> (≥ 450)	<b>820</b> (≥ 690)	<b>26</b> (≥ 20)	<b>90</b>	<b>60</b>	<b>250</b>

u untreated, as-welded

## Operating data

	Polarity DC+	Electrode ID 2209-15/2205 BAS	Ø mm	L mm	Current A
			2.5	300	50 – 70
			3.2	350	70 – 110
4.0	350	100 – 140			

Interpass temperature max. 150°C

Heat input 0.5–2.5 kJ/mm

Metal recovery approx. 110%

## Approvals

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