

## Thermanit 22/09

Solid wire, high-alloyed, stainless

Classifications					
EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	Mat. No.		
G 22 9 3 N L	SS2209	ER2209	≈1.4462		

## Characteristics and typical fields of application

Duplex stainless steel; resistant to intercrystalline corrosion and wet corrosion up to 250 °C (482 °F). Good resistance to stress corrosion cracking in chlorine- and hydrogen sulphide-bearing environment. High Cr- and Mo-contents provide resistance to pitting corrosion. For joining and surfacing work with matching and similar austenitc steels / cast steel grades. Attention must be paidto embrittlement susceptibility of the parent metal.

## **Base materials**

TÜV-certified duplex stainless steels 1.4462 – X2CrNiMoN22-5-3 and others, also combinations of aforementioned steels and ferritic steels up to S355J, 16Mo3 and 1.4583 – X10CrNiMoNb18-12 – UNS S31803, S32205

Typical analysis of solid wire (wt%)							
	С	Si	Mn	Cr	Мо	Ni	N
wt-%	0.025	0.5	1.6	23.0	3.0	9.0	0.14

Structure: Austenite/Ferrite

Mechanical properties of all-weld metal					
Heat- treatment	Yield strength R <sub>p0.2</sub>	Yield strength R <sub>p1.0</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J
	MPa	MPa	MPa	%	+20 °C
aw	510	550	700	25	70

Operating data						
Polarity:	Shielding gas:		ø (mm)	Spool:		
DC (+)	(EN ISO 14175) M12, M13		0.8	BS300		
			1.0	B300		
			1.2	B300		
Welding instruction						
Materials		Preheating	Postweld heat treatment			
Matching / similar steels / None		None	Mostly none; if necessary solution			

## **Approvals**

cast steel grades

TÜV (03342), DB (43.132.36) DNV, GL, CE

annealing at 1050 °C (1922 °F)/ water