

ER307

Stainless and heat resistant steel

WELDING CONSUMABLES

AWS A5.9: ER307
EN 12072: 18 8 Mn
W.N.: 1.4370

ER307








ER307 is austenitic stainless steel type material with increased Mn content ensuring high crack resistance. High silicon content provides improved weld flow and weldability for smoother weld beads.

Suitable for welding of dissimilar steels, difficult to weld steels, armour plates, non-magnetic steels, work hardening austenitic manganese steels, stainless steels with max Cr content 18%. Often used as a buffer layers on crack sensitive base metals and hardfacing applications, like crane wheel, rails, rail crossings surfacing, etc.

1. Shielding gases (acc. EN ISO 14175)

GTAW	I1	Inert gas Ar (100%)
GMAW	M12	Mixed gas Ar + 0÷5% CO ₂
	M13	Mixed gas Ar + 0÷3% CO ₂

2. Welding positions

						
PA	PB	PC	PD	PE	PF	PG

3. Chemical composition %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
≤0.10	5.00-8.00	0.65-1.00	≤0.03	≤0.03	8.00-10.00	17.00-20.00	≤0.50	≤0.50

4. Mechanical properties, all weld metal

Heat treatment	Yield Strength, R _{p0.2} (MPa)	Tensile Strength, R _m (MPa)	Elongation, A (%)	Impact Energy ISO-V(J)	
				+20°C	-120°C
AW	≥400	≥580	≥40	≥100	>35

5. Available size and packaging

Process	Diameter, mm	Box 5-10 kg	D100 1 kg	D200 5 kg	D300 15 kg	BS300 15 kg	K300 15 kg	Coil 25-40 kg	Drum 100-300 kg
GTAW	1.00 - 5.00	x							
GMAW	0.60 - 2.00		x	x	x	x	x	x	x

* Customer packing on request.

Note: All information enclosed in this datasheet is based on our best knowledge and is given as indicative. Other special requirements are subject to prior discussion and approval of Vojay. Please contact us for any additional information or request.