

Outersield® 91Ni1-HSR

Key Features

- All positional gas shielded 1.0% Ni / 0.4% Mo alloyed flux cored wire
- Exceptional mechanical properties
- Outstanding operator appeal, excellent feeding and meets NACE MR-0175 requirements
- EN 10204 3.1 type certificates available

Typical Applications

- Welding prequalified procedures for steel group 8Q according to AS/NZS 1554.4 Table 4.6.1.
- Suitable for offshore and similar applications
- Boiler and pressure vessels
- Low alloy high strength steels
- Specifically designed for stress relieved applications, excellent impact properties after PWHT

Conformances

AWS A5.29/A5.29M: E91T1-GM

AS/NZS ISO 18276-A: T 55 4 1NiMo P M 2 H5

AS/NZS ISO 18276-B: T 62 4 T1-1 M AP N2M2 U H5

Welding Positions



Shielding Gas

- 75-85% Argon / 15-25% CO₂
- Flow Rate: 15-25 L/min

Diameter / Packaging / Settings

Diameter mm	Part Number	Packaging	WFS in/min	Voltage volts	Current amps	CTWD mm
1.2	942673N	Spool S300 VFB 16kg	175-600	20-32	130-300	15-20

Mechanical Properties - As required per AWS A5.29

	Yield Strength MPa	Tensile Strength MPa	Elongation %	Charpy V-Notch J @ -40°C
Requirements - AWS E91T1-G As Welded with M21 gas	540 min	620-760	17 min	NA
Typical Results - As Welded	640	700	19	60

Deposit Composition

	%C	%Mn	%Si	%S	%P	%Ni	%Mo	Diffusible Hydrogen
Typical Results - As Welded	0.05	1.4	0.20	0.010	0.013	0.95	0.40	4 ml / 100 g