Outershield® 81K2-H

TOP FEATURES

- Rutile flux cored gas shielded 1.5% Ni, Ti and B alloyed flux cored wire with very good impact toughness down to -60°C.
- Best in class consumable for welding of wind mill foundations and applications in offshore oil and gas and structural segments. Superior weldability, low spatter, good bead appearance.
- Exceptional mechanical properties (CVN >80J at -60°C).
- Superior product consistency with optimal alloy control
- Can be applied for applications requiring CTOD testing.

TYPICAL APPLICATIONS

- Offshore
- Wind tower floating foundations
- Steel construction
- Pipeline
- HYPERFILL

CLASSIFICATION

AWS A5.29	E81T1-K2M-J
EN ISO 17632-A	T 50 6 1.5Ni P M 2 H5

CURRENT TYPE

DC+

WELDING POSITIONS

All except vertical down

SHIELDING GASES (ACC. EN ISO 14175)

M21	Mixed gas Ar+ (>15-25%) CO_2
Flow rate	15-25 l/min

APPROVALS

LR	DNV	RINA
+	+	+

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL, ALL WELD METAL

Shielding gas	C	Mn	Si	P	S	Ni	HDM
M21	0.04	1.4	0.2	0.012	0.010	1.4	3 ml/100 g

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Shielding gas	Condition*	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact ISO-V (J) -40°C	-50°C	-60°C
Required: AWS A5.29			min. 470	550-690	min. 19	min. 27		
EN ISO 17632-A			min. 500	560-720	min. 18			min. 47
Typical values	M21	AW	590	630	23	130	100	80

* AW = As welded

PACKAGING AND AVAILABLE SIZES

Wire diameter (mm)	Packaging	Weight (kg)	Item number
1.2	SPOOL (B300)	16.0	941395N

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:

Subject to Change – The information is accurate to the best of our knowledge at the time of printing.
Please refer to www.lincolnelectric.eu for any updated information.