

Innershield® NR-131

Mild Steel, Flat & Horizontal • AWS E70T-10

Key Features

- ▶ Fast travel speeds and high deposition rates
- ▶ Maximum penetration
- ▶ Flat bead profile on butt welds
- ▶ Join dissimilar plate thicknesses with even heat distribution

Typical Applications

- ▶ Single pass welding on up to 2.8 mm (0.110 in) thicknesses
- ▶ Sheet metal
- ▶ Automotive

Conformances

AWS A5.20/A5.20M: 2005 E70T-10
ASME SFA-A5.20: E70T-10

Welding Positions

Flat & Horizontal

Warning

- ▶ NR-131 is NOT recommended for welding multiple passes.

DIAMETERS / PACKAGING

Diameter in (mm)	600 lb (272 kg) Speed-Feed® Reel
3/32 (2.4)	ED012163

MECHANICAL PROPERTIES⁽¹⁾ – As Required per AWS A5.20/A5.20M: 2005

	Transverse Tensile Strength MPa (ksi)	Longitudinal Bend Test	Hardness Rockwell B
Requirements - AWS E70T-10	480 (70) min.	180° over 3/4 in Radius No openings exceeding 1/8 in	–
Typical Results ⁽³⁾	505-560 (75-80)	Passed	99

DEPOSIT COMPOSITION⁽¹⁾ – As Required per AWS A5.20/A5.20M: 2005

	%C	%Mn	%Si	%S	%P	%Al
Requirements - AWS E70T-10	Not Specified					
Typical Results ⁽³⁾	0.22-0.26	0.42-0.65	0.20-0.27	0.005-0.007	0.007-0.02	1.18-1.49

TYPICAL OPERATING PROCEDURES

Diameter, Polarity	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Voltage (volts)	Approx. Current (amps)	Melt-Off Rate kg/hr (lb/hr)	Deposition Rate kg/hr (lb/hr)	Efficiency (%)
3/32 in (2.4 mm), Single Arc, DC-	38 (1-1/2)	3.8 (150)	25-26	390	6.5 (14.3)	5.3 (11.6)	81
		5.1 (200)	25-27	490	8.6 (19.0)	7.1 (15.6)	82
		6.4 (250)	26-27	570	10.8 (23.7)	8.9 (19.6)	82
		8.9 (350)	26-28	720	15.0 (33.1)	33.6 (27.6)	83
		10.8 (425)	27-28	810	18.2 (40.1)	15.2 (33.6)	83
3/32 in (2.4 mm), Twinarc, DC-	44 (1-3/4)	3.3 (130)	25-26	550	11.1 (24.5)	8.1 (17.9)	72
		4.4 (175)	26-27	740	15.0 (33.0)	12.0 (26.4)	79
		5.7 (225)	26-28	910	19.3 (42.5)	15.8 (34.8)	81
		7.0 (275)	27-29	1030	23.5 (51.9)	19.1 (42.0)	80
		8.3 (325)	28-30	1090	27.9 (61.4)	21.9 (48.2)	78

⁽¹⁾Typical all weld metal. ⁽²⁾See test results disclaimer below.

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

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.

CUSTOMER ASSISTANCE POLICY

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