



### Description & Applications

- Universal mild-steel electrode for all-round repair and general fabrication.
- Fast-freezing slag system for maximum positional operability.
- High-speed welding on thin gauge, clean or new steel components.
- MNR UNIVERSAL™ is one of the most versatile, general purpose electrodes for maintenance and fabrication.

### The BLUESHIELD™ Advantage

- Welds in all positions: flat, vertical up and down and overhead, at same amperage setting.
- MNR UNIVERSAL™ has a special coating that bends without flux chipping.
- Contact welding with the plate, electrode weld by itself.
- Available in small diameter for low-voltage power sources.
- 1.6 mm (1/16 in) diameter makes an excellent electrode for welding on thin gauge.

### Typical Welding Parameters

- DCEP, DCEN or AC.
- Short to medium arc length, lean electrode 45° towards the direction of travel.
- Use any welding technique from stringer bead to wide weave.
- Use on clean or new mild steel components.



DIAMETER		Minimum	AMPERAGE	
mm	in		Maximum	Optimum
1.6	1/16	20	40	30
2.5	3/32	50	70	60
3.2	1/8	70	110	90
4.0	5/32	115	140	125

### Deposition Rates

DIAMETER mm (in)	LENGTH mm (in)	WELD METAL / ELECTRODE	ELECTRODE PER kg (lb) OF WELD METAL	DEPOSITION RATE kg/h (lb/h)
1.6 (1/16)	300 (12)	3 g (0.11 oz)	320 (145)	0.48 (1.05)
2.5 (3/32)	350 (14)	8 g (0.30 oz)	117 (53)	0.76 (1.67)
3.2 (1/8)	350 (14)	17 g (0.62 oz)	57 (26)	1.09 (2.4)
4.0 (5/32)	350 (14)	28 g (1 oz)	35 (16)	1.36 (3.0)

### Typical Mechanical Properties\*

TENSILE STRENGTH MPa (ksi)	YIELD STRENGTH MPa (ksi)	ELONGATION (%)	CHARPY V-NOTCH IMPACT ENERGY
600 (80)	540 (75)	25	90J @ -20°C 66 lb-ft @ -4°F

\* Actual welding positions and procedures can impact results.

### Packaging

DIAMETER		kg	PACKAGING		ITEM NUMBER
mm	in		lb		
1.6	1/16	0.5	1.1	Tube	A0274528
2.5	3/32				A0274529
3.2	1/8				A0274531
2.5	3/32	5	11	Heavy plastic box	A0274530
3.2	1/8				A0274532
4.0	5/32				A0274533