



Manufacturers of Custom Welding Lines for Resale
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SELECTRODE 1255

M2 High Speed Tool Steel

INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.13 E Fe6

DIN 8555: E4-UM-60-ST

FEATURES & APPLICATIONS

For repair and reclamation of high speed cutting and machining tools.

High hardness tool steel electrode for high speed tool steels

- Deposits maintain a very sharp edge.
- Alloying elements include tungsten, molybdenum and vanadium.
- Weld metal maintains many of its properties at elevated temperatures.

ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

Microstructure: In the as-welded condition, the microstructure consists of partially tempered martensite with carbides and some retained austenite.

Flux Color: Grey

C	Mo	Mn	W	Si	V	Cr	Fe
.8	7	.6	1.5	1	1.4	4.5	Bal

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal

Hardness (as welded)

Hot Hardness

Heat Treated

Maximum Value Up to:

Rockwell C 60-62

Rockwell C 56 at 1100°F (600°C)

Rockwell C 63-65

WELDING CURRENT & INSTRUCTIONS**Recommended Current:** DC Reverse (+), Straight (-) or AC

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Minimum Amperage	45	80	110
Maximum Amperage	90	120	150

Welding Techniques: When welding on tool steel, preheat the part to 1100°F (600°C) and maintain this temperature during welding. Allow parts to cool slowly.

Welding Positions: Flat, Horizontal, Vertical up

Deposition Rates:

Diameter (mm)	Length (mm)	Weldmetal/ Electrode	Electrodes per lb (kg) of Weldmetal	Arc Time of Deposition min/lb (kg)	Amperage Settings	Recovery Rate
3/32 (2.5)	14" (350)	.45 oz (12g)	36 (78)	30 (66)	70	120%
1/8 (3.25)	14"(350)	.93 oz (25g)	17 (38)	20 (44)	100	120%
5/32 (4.0)	14" (350)	1.2 oz (34g)	13 (29)	17 (37)	130	120%

APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Length (mm)	14" (350)	14" (350)	14" (350)
Electrodes / lb	19	12	9
Electrodes / kg	42	26	20