Manufacturers of Custom Welding Lines for Resale
www.selectrode.com

SELECTRODE 1253

H13 Hot Work Tool Steel Electrode

INTERNATIONAL CLASSIFICATION

None

FEATURES & APPLICATIONS

For repair and reclamation of tools and dies subject to heat checking.

Tungsten free hot work tool steel electrode
- Deposits maintain a very sharp edge.
- Alloying elements include molybdenum and vanadium.
- Weld metal maintains many of the properties of H13 tool steel.
- Also available in TIG form as product code 6111.

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

Si	C	Mo	S	Mn	V	Cr	P	Fe
.67	.35	1.35	.03	.4	.97	5.26	.03	Bal

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal	**Maximum Value Up to:**
Hardness (as welded)	Rockwell C 54-57

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	60-90	80-120	125-175

Welding Techniques: When welding on tool steel, preheat the part to 1100ºF (600ºC) 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	19
Electrodes / kg	42	26	20