



Hardalloy[®] 32 MAIN LINE

HARD SURFACING ELECTRODE

Build-Up

Replaces HS-151A

220-C INDEX: 981201

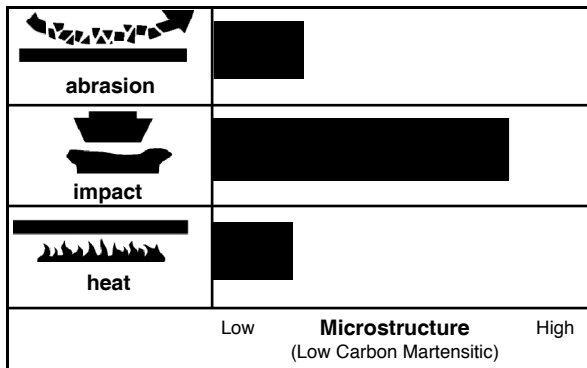
DESCRIPTION:

Hardalloy 32 deposits a heat-treatable steel alloy designed for build-up of carbon and low alloy steels. High compressive strength makes it an excellent base for harder or more abrasion-resistant overlay alloys. It has good resistance to cracking, even in multiple-pass deposits. Hardalloy 32 is not limited to a maximum number of layers of build-up. The deposit hardness is well within the machinable range, making it well-suitable for overlay of shafts, gears, and other components which require machining. Hardalloy 32 should never be used for joining.

OPERATIONAL CHARACTERISTICS:

Hardalloy 32 operates well at the high end of its amperage range. The coating provides a smooth, stable arc with low spatter loss. Weaving up to four times the electrode diameter is satisfactory. Diameters 1/8" and 5/32" can be used out-of-position using reduced amperage, building a series of horizontal beads on a "shelf", and by using a weave technique.

RELATIVE WEAR RESISTANCE:



TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis

Carbon (C)	0.18
Manganese (Mn)	1.30
Silicon (Si)	0.60
Chromium (Cr)	0.70
Nickel (Ni)	0.30
Iron (Fe)	Bal.

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

	Number of Layers [†]	As-Deposited on 1020 Steel
Hardness	1-2	17-20 Rc
	3-8	25-30 Rc
Machinability		
Cannot be flame cut		
Deposit is strongly magnetic		
Deposit is heat treatable and forgeable		

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and McKay expressly disclaims any liability incurred from any reliance thereon. No data is to be construed as a recommendation for any welding condition or technique not controlled by McKay.



RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	Minimum Amps	Optimum Amps	Maximum Amps	Deposition Rate lb/hr [†]
Inches	mm					
1/8	3.2	DCEP* or AC	110	140	165	2
5/32	4.0	DCEP* or AC	155	180	210	3
3/16	4.8	DCEP* or AC	180	220	270	5
1/4	6.4	DCEP* or AC	250	300	365	7

* Preferred

[†] Typical at optimum settings

Note: To maximize deposition use higher amperages. To minimize penetration (and dilution) use lower amperages.

AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		10-lb. Can	50-lb. Can
Inches	mm	Inches	mm		
1/8	3.2	14	355	S540144-033	—
5/32	4.0	14	355	S540151-033	—
3/16	4.8	14	355	S540158-033	—
1/4	6.4	18	457	—	S540181-035

APPLICATIONS:

- Bucket Teeth and Lips
- Coupling Boxes
- Crane Wheels
- Dragline Buckets and Chain
- Dredge Ladder Rolls
- Gear Teeth
- Grizzly Bars and Fingers
- Kiln Trunnions
- Mine Car Wheels
- Steel Shafts
- Tractor Idlers and Rollers

Material Safety Data Sheets on any McKay product may be obtained from McKay Customer Service.

Because McKay is constantly improving products, McKay reserves the right to change design and/or specifications without notice.

Hardalloy is a registered trademark of ITW Hobart Brothers Company, Troy, Ohio.