



Hardalloy® 155 MAIN LINE

HARD SURFACING ELECTRODE

Overlay

Replaces HS-152A

220-F INDEX: 981201





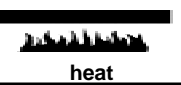

DESCRIPTION:

Hardalloy 155 deposits on extra high chromium carbide alloy steel intended for overlay on surfaces subjected to extremely severe abrasion. It maintains its hot hardness to 1250°F and has an excellent edge-building capability. Hardalloy 155 is designed for overlay on carbon, low alloy, or manganese steel base metals or over a welded build-up base of Hardalloy 32, Hardalloy 118, or Chrome-Mang. Relief check cracking will readily occur with this product. This cracking is not detrimental to the wear properties of the deposit and provides some degree of stress relief for the weld metal.

OPERATIONAL CHARACTERISTICS:

Hardalloy 155 operates with a globular transfer and has minimal slag coverage. It has an excellent edge-building capability. A 1/4 inch arc length should be maintained when welding vertical surfaces; the smaller diameters have better operating characteristics. Vertical surfaces may be overlaid by building a series of horizontal beads on a “shelf” using a weave technique.

RELATIVE WEAR RESISTANCE:

 abrasion	
 impact	
 heat	
Low Microstructure High (Massive Chromium Carbide in an Austenite-Carbide Matrix)	

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis

Carbon (C)	5.50
Manganese (Mn)	0.40
Silicon (Si)	1.00
Chromium (Cr)	32.00
Molybdenum (Mo)	4.50
Iron (Fe)	Bal.

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

Hardness - as Deposited	59-63 Rc
Nonmachinable - grinding is difficult	
Cannot be flamed cut	
Deposit will relief-check crack readily	
Deposit maintains hot hardness to 1250°F	
Thickness should be limited to 3 layers max.	

*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.



Hardalloy® 155 MAIN LINE

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	115	140	150	3.5
5/32	4.0	DCEP* or AC	130	150	170	4.5
3/16	4.8	DCEP* or AC	160	190	210	6.0

* 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
Inches	mm	Inches	mm	
1/8	3.2	14	355	S542244-033
5/32	4.0	14	355	S542251-033
3/16	4.8	14	355	S542258-033

APPLICATIONS:

- Ammonia Knives
- Augers
- Bucket Teeth and Lips
- Bulldozer Blades
- Cement Chutes
- Coke Chutes
- Coke Pusher Shoes
- Coal Feeder Screws
- Coal Pulverizer Hammers
- Conveyor Screws
- Crusher Rolls
- Cultivator Chisels and Sweeps
- Dredge Cutter Heads and Teeth
- Dredge Pump Inlet Nozzle and Side Plates
- Fan Blades
- Grizzly Bars and Fingers
- Manganese Pump Shells
- Muller Tires
- Ore/Coal Chutes
- Paving Agitator Screws
- Pipeline Ball Joints
- Pug Mill Paddles
- Ripper Shanks
- Road Rippers
- Sheepsfoot Tampers
- Sizing Screens
- Subsoiler Teeth

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.