



Tube-Alloy[®] BU-S

SUBMERGED-ARC HARD SURFACING WIRE

Build-Up

Replaces HS-126 (990129)

270-A, INDEX: 120711







DESCRIPTION:

Tube-Alloy BU-S deposit is low alloy steel composition. It can be used for build-up on mild and low alloy steel components. The weld metal has good compressive strength, making it an excellent base for surfacing.

OPERATIONAL CHARACTERISTICS:

Tube-Alloy BU-S is a high-deposition rate wire that produces sound, porosity-free, crack-free weld deposits. McKay HF-N flux is recommended.

RELATIVE WEAR RESISTANCE:

 abrasion	
 impact	
 heat	
Low Microstructure High (Low carbon martensitic)	

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis

Carbon (C)	0.12
Manganese (Mn)	1.80
Silicon (Si)	0.80
Chromium (Cr)	0.70
Iron (Fe)	Bal.

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

	Number of Layers	As Deposited on		
		1020 Steel	1045 Steel	
Hardness	1	20 Rc	35 Rc	
	2	26 Rc	34 Rc	
	3	30 Rc	31 Rc	
Hardness As-Deposited	Time at Temp.	Hardness after Tempering		
		950°F	1050°F	1150°F
31 Rc	6 Hrs.	24 Rc	21 Rc	20 Rc
	10 Hrs.	23 Rc	20 Rc	19 Rc
	20 Hrs.	22 Rc	19 Rc	17 Rc

continued on back

*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.



Tube-Alloy® BU-S

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

(continued)

Abrasion resistance - fair
Impact resistance - very good
Machinability - excellent
Can be flame cut
Strongly magnetic
Deposit thickness - as required

RECOMMENDED OPERATING PARAMETERS:

Diameter Inches	mm	Type of Power	Stick-Out		Travel Speed (per minute)		Optimum Amps	Volts	Deposition Rate lb/hr ¹
			Inches	mm	Inches	mm			
1/8	3.2	DCEP	1-1/4 - 1-1/2	32-38	14-18	356-456	400-450	26-28	16
							450-500	27-30	20
							500-550	29-32	24
5/32	4.0	DCEP	1-1/4 - 1-1/2	32-38	16-20	406-508	450-500	28-30	18
							500-600	29-32	23

¹ Typical at optimum settings

AVAILABLE DIAMETERS AND PACKAGES:

Diameter Inches	mm	250 lb. Auto-Pak	500 lb. Auto-Pak
		1/8	3.2
5/32	4.0	—	S613250-066

APPLICATIONS:

- Crane Wheels
- Dredge Ladder Rolls
- Mine Car Wheels
- Sprindles
- Table Rolls
- 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.

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