



Hardalloy[®] 40 TiC

HARD SURFACING ELECTRODE

Overlay

Replaces 981201

220-J INDEX: 991115
U.S. Pat. No. 4, 584, 459

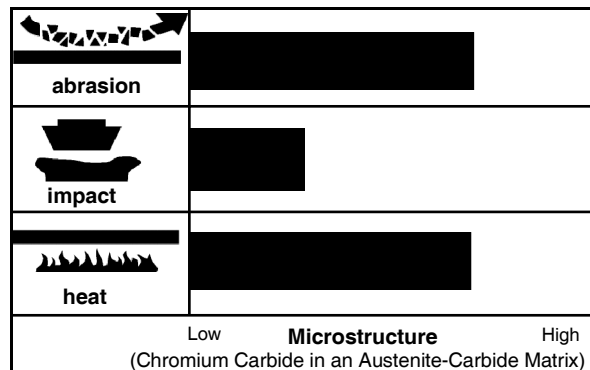
DESCRIPTION:

Hardalloy 40 TiC deposit is a high alloy cast iron containing chromium and titanium as the important alloying ingredients added for increased wear life. It is suited for overlaying surfaces subjected to heavy abrasion and moderate impact. Hardalloy 40 TiC is an excellent overlay material on both carbon steels and austenitic manganese base metals.

OPERATIONAL CHARACTERISTICS:

Hardalloy 40 TiC is designed for DCEP or AC operation in all positions. Operation of the electrode is characterized by a spray-like transfer and low spatter. Shallow penetration minimizes the dilution effect that is frequently undesirable in one-and-two layer deposits.

RELATIVE WEAR RESISTANCE:



TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis

Carbon (C)	3.00
Manganese (Mn)	1.10
Silicon (Si)	0.80
Chromium (Cr)	8.20
Titanium (Ti)	1.50
Iron (Fe)	Bal.

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

	Number of Layers	As-Deposited on	
		1020 Steel	12-14% Mn Steel
Hardness	1	39 Rc	39 Rc
	2	45 Rc	45 Rc
	3	50 Rc	50 Rc

Maintains hot hardness up to 1200°F

Not machinable or forgeable

Non-magnetic

Cannot be flame cut

Relief checks

Thickness - 2 layers min./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® 40 TiC

RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	Optimum Amps
Inches	mm		
1/8	3.2	DCEP* or AC	120
5/32	4.0	DCEP* or AC	160
3/16	4.8	DCEP* or AC	200
1/4	6.4	DCEP* or AC	260

*Preferred

AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		10-lb. Can	50-lb. Can
Inches	mm	Inches	mm		
1/8	3.2	14	355	S541144-033	—
5/32	4.0	14	355	S541151-033	—
3/16	4.8	14	355	S541158-033	—
1/4	6.4	18	457	—	S541181-035

APPLICATIONS:

- Ammonia Knives
- Augers
- Bucket Teeth and Lips
- Bulldozer End Bits and Blades
- Cement Chutes
- Coke Pusher Shoes
- Conveyor Screws
- Crusher Rolls
- Cultivator Chisels and Sweeps
- Dredge Pump Inlet Nozzle
- Hammer Mill Hammers
- Impactor Crusher Bars
- Mil Hammers
- Muller Tires
- Plow Shares
- Scraper Blades
- Sheepsfoot Tampers
- 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.

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