

VertiWear® 600









DESCRIPTION:

VertiWear 600 deposits a multi-purpose martensitic steel alloy. It has excellent operator appeal in all positions and can be used to surface mild and low alloy steel components subject to moderate abrasive wear and medium to high impact. Deposits can be applied crack-free in multiple layers with proper procedures.

OPERATIONAL CHARACTERISTICS:

VertiWear 600 is a gas-shielded, flux-cored, all-purpose wire designed to operate in a smooth, semi-spray arc transfer with 100% CO₂ or 75% Ar/25% CO₂ shielding gas. The operation is superior to competitive gas-shielded hard surfacing wires, allowing higher deposition and greater productivity in out-of-position applications.

RELATIVE WEAR RESISTANCE:

 abrasion	
 impact	
 heat	
Low Microstructure High (Martensitic)	

TYPICAL WELD METAL PROPERTIES* (Chem Pad):

Weld Metal Analysis

Carbon (C)	0.40
Manganese (Mn)	0.75
Silicon (Si)	0.60
Chromium (Cr)	6.50
Molybdenum (Mo)	1.00
Iron (Fe)	Bal.

TYPICAL MECHANICAL PROPERTIES* (As Welded):

	Number of Layers	As-Deposited on 1020 Steel	
Hardness	1	52 Rc	
	2	56 Rc	
	3 - 8	57 Rc	
Hardness As-Deposited	Time at Temp.	Hardness after Tempering	
		1000°F	1150°F
55	10 Hrs.	54	46
	20 Hrs.	49	40
	80 Hrs.	47	40

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*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers Company 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 Hobart Brothers Company.

VertiWear® 600

(continued)

Abrasion resistance	Good
Impact resistance	Good
Machinability	Good
Flame cutting	Difficult
Magnetic	

RECOMMENDED OPERATING PARAMETERS:

Diameter Inches	mm	Position	Stick-Out		Optimum Amps	Volts	Wire Feed Speed	
			Inches	mm			lpm	mpm
0.45	1.2	Flat	1/2	13.0	185	28	265	6.7
		Horizontal	1/2	13.0	180	24	255	6.5
		Vertical	1/2	13.0	165	24	225	5.7
1/16	1.6	Flat	3/4	19.2	280	29	280	8.1
		Horizontal	3/4	19.2	265	25	265	7.5
		Vertical	3/4	19.2	250	25	250	7.0

Parameters may be adjusted ± 25 amps and ± 1 volt for optimum performance. A constant potential power source is recommended, using DCEP polarity with 75% Ar/25% CO₂ or 100% CO₂ shielding gas.

AVAILABLE DIAMETERS AND PACKAGES:

Diameter Inches	mm	25 lb. Spool
.045	1.2	S607112-029
1/16	1.6	S607119-029

APPLICATIONS:

- Coupling Boxes
- Dragline Chain
- Dredge Ladder Rolls
- Kiln Trunnions
- Mill Guides
- Sliding Metal Parts
- Wobbler Ends

TECHNICAL QUESTIONS? For technical support of Hobart Filler Metals products, contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at Applications.Engineering@hobartbrothers.com

CAUTION:

Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 8669 NW 36th St., Miami, FL 33166 (can also be downloaded online at www.aws.org); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service or at www.hobartbrothers.com.

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