

WEARTECH® SHS® 9172HV

Severe Abrasion

KEY FEATURES

- Excels in high sulfur and elevated temperature environments where fly-ash and bed-ash erosion occurs
- Exceptional abrasion resistance for a metallic material
- Significant corrosion and high temperature oxidation resistance
- Very high bond strength across a range of substrate materials, including aluminum, copper, carbon steel and stainless steel.
- Can be finished to very high surface specifications as a replacement for hard chrome
- Hardness and corrosion and wear resistance is superior to hard chrome

TYPICAL APPLICATIONS

- Oil & Gas
- Power Generation
- Mining
- Pulp & Paper

Size Micron (µm)	10 lb (4.5 kg) Bottle
+15/-53	P9172-15/53 (ED035734*)

* EDO numbers have been discontinued and replaced by the Wearthech part numbers for the cross selling program.

MECHANICAL PROPERTIES

Vicker's Hardness (HV0.3)	Wear Resistance	Bond Strength ksi (MPa)
1000 - 1100	ASTM G65-04 Procedure B 0.07 g mass loss	ASTM C633-01 Glue Failure 10 (69)

DEPOSIT COMPOSITION

%Fe	%C	%Cr	%B	%Mo	%Nb	%W	%Mn	%Si
Balance	<4	<25	<5	<6	<12	<15	<3	<2

TYPICAL OPERATING PROCEDURES

Feeder Speed (rpm)	Gas Flow (cfh)	Powder Feed Rate lb/hr (g/min)	Spray Distance in (mm)	Deposit Rate (mil/pass)
270 (6 pitch screw)	21	10 (75.6)	14 (356)	0.2-0.4
Fuel Flow Rate gal/hr (l/min)	Fuel Pressure (psi)	Oxygen Flow Rate (cfh)	Oxygen Pressure (psi)	Combustion (psi)
6 (0.45)	120	1900	135	100

* This procedure was developed on a TAFA JP5000. Changes in equipment, materials, and substrates may change optimum procedures. Listed procedures should only be used as a starting point.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED
Fumes from the normal use of some welding products can contain significant quantities of components - such as chromium and manganese - which can lower the 5.0 mg/m ³ maximum exposure guideline for general welding fume.
BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.