AN ISO 9001:2015 COMPANY
CERTIFICATE NO.: C755336

EB3 DATA SHEET

Pinnacle Alloys EB3
AWS CLASS EB3
CODE AND SPECIFICATION DATA:
AWS A5.23 ASME SFA 5.23; UNS K31115

DESCRIPTION:
Pinnacle Alloys EB3 is a copper-coated solid wire for submerged arc welding with 2.25% Cr and 1% Mo content to be used for the welding of creep resistant steel. It is used in the chemical industry, the ammonia synthesis process, for heat exchangers, boilers, piping, and pressure vessels for temperature service up to about 1110°F (600°C). Other applications include the petro-chemical industries, as it is suitable for facing on casting and for casting repairs. Base materials that can be welded include A182 F22, A199 T21 & T22, A200 T21 & T22, A213 T22, A335 P22, and A387 Gr 21 & 22. This material is designed to be used with basic fluxes. Typical preheat and interpass temperatures are between 390°F-480°F. PWHT is typically performed at 1270°F for one hour minimum.

DIAMETERS: 3/32", 1/8", 5/32"

WELDING POSITIONS: Flat and horizontal fillet only

TYPICAL DEPOSIT COMPOSITION:

	AWS Spec	Weld Metal Analysis (%)
Carbon (C)	0.05-0.15	0.12
Chromium (Cr)	2.25-3.00	2.50
Copper (Cu)	0.35	0.15
Manganese (Mn)	0.40-0.80	0.60
Molybdenum (Mo)	0.90-1.10	1.00
Phosphorus (P)	0.025	0.01
Silicon (Si)	0.05-0.30	0.15
Sulfur (S)	0.025	0.01

NOTE: Single values are maximums.

TYPICAL MECHANICAL PROPERTIES:

To be determined based upon wire/flux combination.

TYPICAL WELDING PARAMETERS:

	Diameter	Type of Current	Amperage	Volts
SAW	3/32”	DCEP or AC	350-450	27-30
	1/8”	DCEP or AC	430-530	27-30
	5/32”	DCEP or AC	480-580	27-30

NOTE: Contact SOWESCO technical support for information on wire/flux combination recommendations at the number below. Maintaining a proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material being welded.

NOTICE: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for the use in the field. The manufacturer disclaims any warranty of merchantability of fitness for any particular purpose with respect to its products.

CAUTION: Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standards A49.1, “Safety in Welding and Cutting,” published by the American Welding Society, 8669 NW 36 Street, #130, Miami, FL 33126: OSHA Safety and Health Standards 29 CRF 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210.

Pinnacle Alloys SDS sheets may be obtained on the website below.