AN ISO 9001:2015 COMPANY
CERTIFICATE NO.: C755336

R45 DATA SHEET

Pinnacle Alloys R45
AWS CLASS R45
CODE AND SPECIFICATION DATA:
AWS A5.2 ASME SFA 5.2; UNS K00045

DESCRIPTION:
Pinnacle Alloys R45 welding rods are used for the oxyfuel gas welding of steels, where the minimum tensile strength requirement of the steel does not exceed 45,000 psi. R45 rods have a low carbon steel composition. Oxyfuel gas welding rods have no coverings to influence the usability of the rod. Thus, the ability to weld in the vertical or overhead position is essentially a matter of welder skill and can be affected to some degree by the chemical composition of the rod.

DIAMETERS: 1/16”, 3/32”, 1/8”, 5/32”

WELDING POSITIONS: All positions

TYPICAL DEPOSIT COMPOSITION:

	AWS Spec	Weld Metal Analysis (%)
Aluminum (Al)	0.02	0.00
Carbon (C)	0.08	0.046
Chromium (Cr)	0.20	0.025
Copper (Cu)	0.30	0.15
Manganese (Mn)	0.50	0.474
Molybdenum (Mo)	0.20	0.001
Nickel (Ni)	0.30	0.007
Phosphorus (P)	0.035	0.016
Silicon (Si)	0.10	0.013
Sulfur (S)	0.04	0.008

NOTE: Single values are maximums.

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TYPICAL MECHANICAL PROPERTIES:

	AWS Spec (min)	As Welded
Ultimate Tensile Strength	Not required	72,520 psi (500 MPa)
Percent Elongation in 2”	Not required	17%

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.