

# HAYNES<sup>®</sup> 117 Coated Electrodes

## Product Description:

HAYNES<sup>®</sup> 117 coated electrodes are used for the shielded metal arc welding of HAYNES<sup>®</sup> 617 alloy. The weld metal has excellent high-temperature strength and resistance to oxidation. The 117 alloy electrodes are also useful for making dissimilar welds between other high-temperature materials such as 600, 601 and 800. The coating is designed for great operability, especially out-of-position welding.

## Specifications:

AWS A 5.11 ENiCrCoMo-1      ASME IX F-43  
ASME SFA 5.11 ENiCrCoMo-1      UNS W86117

## Composition:

<b>Nickel:</b>	Balance	<b>Silicon:</b>	0.75 max.
<b>Chromium:</b>	21.0-26.0	<b>Copper:</b>	0.5 max.
<b>Cobalt:</b>	9.0-15.0	<b>Other:</b>	0.5 max.
<b>Molybdenum:</b>	8.0-10.0	<b>Carbon:</b>	0.05-0.15
<b>Iron:</b>	5.0 max.	<b>Phosphorus:</b>	0.03 max.
<b>Manganese:</b>	0.3-2.5	<b>Sulfur:</b>	0.015 max.
<b>Niobium + Tantalum</b>	1.0 max.		

## Minimum Mechanical Properties:

<b>Tensile (psi)</b>	90,000
<b>Mpa</b>	620
<b>Elongation (%)</b>	30

## Available Product Forms and Sizes:

<b>Diameter in</b>	0.093	0.125	0.156	0.187
<b>Diameter mm</b>	2.40	3.20	4.00	4.70
<b>Length in</b>	10	14	14	14
<b>Length mm</b>	254	355.6	355.6	355.6
<b>Package Weight lbs.</b>	5	10	10	10
<b>Current (A) DCEP</b>	40-70	70-100	80-140	120-150