

## HAYNES<sup>®</sup> 230-W<sup>®</sup> Coated Electrodes

### Product Description:

HAYNES<sup>®</sup> 230-W<sup>®</sup> coated electrodes are used for the shielded metal arc welding of HAYNES<sup>®</sup> 230<sup>®</sup>. The deposited weld metal has excellent high-temperature strength and outstanding resistance to oxidizing environments up to 2100°F for prolonged exposures. The deposited weld metal also has excellent long-term stability.

### Specifications:

AWS A 5.11 ENiCrWMo-1    UNS W86231

### Composition:

<b>Nickel:</b>	Remainder	<b>Silicon:</b>	0.25-0.75	<b>Sulfur:</b>	0.0015
<b>Chromium:</b>	20.00-24.00	<b>Other:</b>	0.50 max.		
<b>Tungsten:</b>	13.00-15.00	<b>Copper:</b>	0.50 max.		
<b>Cobalt:</b>	5.00 max.	<b>Aluminum:</b>	0.50 max.		
<b>Iron:</b>	3.00	<b>Titanium:</b>	0.10 max.		
<b>Molybdenum:</b>	1.00-3.00	<b>Carbon:</b>	0.10 max.		
<b>Manganese:</b>	0.30-1.00	<b>Phosphorus:</b>	0.02 max.		

### Minimal Mechanical Properties:

<b>Tensile (psi)</b>	90,000
<b>Mpa</b>	620
<b>Elongation (%)</b>	20

### 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