

# HAYNES® M413 RTW™ Filler Metal

## Product Description:

HAYNES® M413 RTW™ filler metal is used for the gas metal, gas tungsten and submerged arc welding of alloy 450 and other copper-nickel alloys. M413 has excellent resistance to sea water corrosion and can be used in marine environments where corrosion resistance is needed. The alloy can be used for the overlay and cladding of steels if a butter later of ERNi-1 is first applied. The RTW™ finish on the spooled wire promotes smooth feeding through welding equipment and reduced tip wear in contact tips.

## Specifications:

AWS A5.7 ERCuNi            UNS C71580  
ASME SFA 5.7 ERCuNi    ASME IX F-34

## Composition:

<b>Copper: (including Silver)</b>	Balance	<b>Other:</b>	0.50 max.
<b>Nickel: (including Cobalt)</b>	29.0-32.0	<b>Silicon:</b>	0.25 max.
<b>Manganese:</b>	1.0 max.	<b>Phosphorus:</b>	0.02 max.
<b>Iron:</b>	0.040-0.75	<b>Lead:</b>	0.02 max.
<b>Titanium:</b>	0.20-0.50	<b>Sulfur:</b>	0.01 max.

## Minimal Mechanical Properties:

<b>Tensile (psi)</b>	50,000
<b>Mpa</b>	345
<b>Elongation (%)</b>	30

## Available Product Forms and Sizes:

<b>Diameter in</b>	0.030	0.031	0.035	0.039	0.045	0.047	0.062	0.078	0.093	*0.125	*0.156x	0.187x
<b>Diameter mm</b>	0.76	0.80	0.89	1.00	1.10	1.20	1.60	2.00	2.40	*3.20	*4.00x	*4.70x

Filler metals are available in MIG spools, TIG cut lengths, reels, and coils from the above diameters.

\*Size not available in MIG spools.

• Size not available on reels.

Standard TIG straight lengths are available in 36" (914mm) lengths. *Other lengths available upon request.*