

## INCONEL<sup>®</sup> Filler Metal 52M

**INCONEL Filler Metal 52M** is used for the gas-tungsten-arc and gas-metal-arc welding of INCONEL alloy 690, and the overlaying of carbon steels and stainless steels to provide a nickel-chromium alloy corrosion resistant surface. The high chromium level provides excellent resistance to stress corrosion cracking in the nuclear, pure water environment. The product can also be used in applications requiring resistance to oxidizing acids. It is useful for dissimilar joints involving INCONEL and INCOLOY alloys.

This product contains Boron and Zirconium to minimize the tendency for ductility-dip cracking, while it is especially resistant to oxide "floaters" and inclusions.

### Specifications

AWS A5.14 ERNiCrFe-7A (UNS N06054)  
ASME II, Part C, SFA-5.14, ERNiCrFe-7A  
ASME IX, F-No.43

### Approvals

Please confirm details of current scope of approvals with the Technical Department prior to order placement.

### Limiting Chemical Composition (%)

Ni .....	Remainder	Ti .....	1.0 max.
C .....	0.04 max.	Co .....	0.12 max.
Mn .....	1.0 max.	Nb .....	0.50 to 1.0
Fe .....	7.0 to 11.0	P .....	0.02 max.
S .....	0.015 max.	Zr .....	0.02 max.
Si .....	0.50 max.	B .....	0.005 max.
Cu .....	0.30 max.	Mo .....	0.50 max.
Cr .....	28.0 to 31.5	Others .....	0.50 max.
Al .....	1.10 max.		

### Minimum Mechanical Properties

Tensile Strength, psi	80,000
MPa	552
Elongation, (4d) %	30

Filler metals available on spool and in cut straight lengths in a variety of sizes selected from the following diameters:

### Available Product Forms

mm in	0.8 0.030	0.9 0.035	1.0 0.040	1.14 0.045	1.2 0.047	1.6 0.062	2.4 0.093	3.2 0.125
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Straight Lengths - 915 mm (36 in.) or 1000 mm (39 in.)