# FCW NI182

*Rutile-basic cored wire*
*Alloy 600 type*

## Classification

AWS A5.34 : ENiCrFe3T0-4 ISO 12153 : T Ni 6182 (NiCr15Fe6Mn) B M21 3

## Description & Applications

Flux cored nickel base wire for gas shielded (Ar + $CO_2$) arc welding in flat position of high nickel alloys such as Inconel 600*, Incolloy 800*. Used for special austenitic stainless steels or dissimilar joining (Low alloy/ Stainless steel, Stainless Steel / Nickel Base). Good resistance to various types of corrosions. Could be used for cryogenic applications due to its high mechanical properties at low temperature.
*Trademarks of INCO ALLOYS

**Main applications**: Cladding on steels of 5% and 9% Ni. Equipment subject to acid very high temperature, repair of difficult to weld steels, buffer layer.

## Typical Chemical Composition ( % )

| | C | Si | Mn | Cr | Fe | Cu | Nb+Ta | Ti | P | S | Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Min | | | 5.0 | 13.0 | | | 1.0 | | | | 59.0 |
| Max | 0.10 | 1.0 | 9.5 | 17.0 | 10.0 | 0.50 | 2.5 | 1.0 | 0.030 | 0.015 | |
| Type | 0.01 | 0.20 | 6.0 | 16.8 | 6.0 | 0.10 | 1.7 | 0.15 | 0.01 | 0.01 | >59.0 |

∑ Others elements : <0.50

## All Weld Metal Mechanical Properties

| | $R_{p0.2}$ ( MPa ) | $R_m$ ( MPa ) | $A_5$ ( % ) | KV ( J ) | |
|---|---|---|---|---|---|
| Min | 360 | 550 | 25 | | |
| Max | | | | | |
| Type | 380 | 610 | 40 | -196°C | 70 |

## Welding Current & Instructions

| Welding mode | Wire Ø (mm) | Welding parameters | | | Shielding Gas |
|---|---|---|---|---|---|
| | | Current (A) | Voltage (V) | Stick-out (mm) | |
| FCAW<br>= + | 1.2<br>1.6 | 130 - 250<br>150 - 300 | 24 - 32<br>24 - 32 | 12 - 25<br>12 - 25 | ISO 14175 :<br>M21 (Ar/$CO_2$)<br>10 - 20 l/min |

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