

## Classifications

EN ISO 12153	AWS A5.34	AWS A5.34M
T Ni 6083 R M21 3	ENiCr3T0-4 (mod.)	TNi 6082-04 (mod.)

## Characteristics and typical fields of application

Rutile flux cored welding wire with basic elements, especially designed for down hand and horizontal welding positions. The low carbon alloyed Ni-Cr-Mn-Nb alloy has a very good stability to hot cracks. Suitable for high quality weld joints of nickel base alloys, high temperature and creep resisting materials, scaling resistant and low-temperature steels, dissimilar joints and difficult weld able steel grades. The flux cored wire is able for welding of low temperature nickel steels. Suitable for the service temperature range  $-196\text{ °C}$  to  $+650\text{ °C}$ , otherwise resistant to scaling up to  $+1200\text{ °C}$ . Out of position weld ability is limited.

## Base materials

2.4816 Ni Cr 15 Fe, 2.4817 LC-NiCr 15 Fe, Alloy 600, Alloy 600 L

Nickel and nickel alloys, low-temperature steels up to X8Ni9, high alloyed Cr- and CrNiMo-steels particularly for joint welding of dissimilar steels and for joint welding to unalloyed and alloyed high-temperature creep resisting steels; also recommended for Alloy 800 (H).

## Typical analysis of all-weld metal (wt.-%)

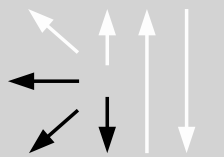
	C	Si	Mn	Cr	Ni	Nb	Fe
wt.-%	0.03	0.3	5.5	19.7	Bal.	2.4	≤ 2.0

## Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0,2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-196 °C
u	<b>380</b> (≥ 360)	<b>640</b> (≥ 600)	<b>41</b> (≥ 27)	<b>130</b>	<b>115</b> (≥ 32)

u untreated, as welded – shielding gas Argon + 15 – 25 % CO<sub>2</sub>

## Operating data

	<b>Polarity:</b> DC (+)	<b>Shielding gases:</b> Argon + 15 – 25 % CO <sub>2</sub>	<b>∅ (mm)</b> 1.2	<b>Amps A</b> 120 – 260	<b>Voltage V</b> 23 – 36
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Welding with standard GMAW-facilities possible, slightly trailing torch position (angel appr. 80°), avoid overheating; The gas flow should be 14 – 20 l/min