

# 1.4876

	%C	%Si	%Mn	%P	%S	%Cr	%Ni	%Al	%Ti
<b>X10NiCrAlTi32-31</b>	-	-	-	-	-	19.0	30.00	0.15	0.15
	≤0.12	≤1.00	≤2.00	0.030	0.015	23.0	34.00	0.60	0.60

## STEEL PROPERTIES

The material 1.4876 could be a nickel-iron-chromium alloy, which is austenitic and heat-resistant. Good resistance is given in oxidizing, reducing and nitrogenous atmospheres. Metallurgical stability is visible in long-term use at high temperatures. Alloy 800H is an austenitic, heat resistant nickel-iron-chromium solution alloy with controlled levels of carbon, aluminium, titanium, silicon and manganese and controlled content of (Al + Ti).

## EQUIVALENT GRADES

EN 10088-1	1.4876	X10NiCrAlTi32-21
AISI	800	
AFNOR	Z10NC32-21	
BS	-	
JIS	NCF800TF	
UNS	-	

## APPLICATIONS

The main areas of application for the Alloy 800 are within the petroleum industry and in furnace, boiler and apparatus construction. Welding: 1.4876 steel may be welded with all processes (TIG welding; MAG solid wire, ARC welding). Nickel alloys are shown as coated stick electrodes for MMA and UP welding.

## HEAT TREATMENT

Solution annealing.

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**Mechanical properties at room temperature for 1.4876 as per EN 10095 in the usual delivery condition**

Flat products with thickness a	Heat Treatment Condition	Hardness HB max.	0.2% Proof strength MPa. min.	Tensile Strength R <sub>m</sub> MPa.	A % Min. Long Products
<160	+AT	192	170	450-680	30

**Physical properties of 1.4876 as per EN 10095**

Density Kg/dm <sup>3</sup>	Linear Expansion Coefficient 10 <sup>-6</sup> k <sup>-1</sup> Between 20°C and (°C)					Thermal conductivity W (m.K)		Specific Heat capacity kJ(kg.K)	Electrical resistivity Ωmm <sup>2</sup> /m At 20°C	Magnetizability
	200°C	400°C	600°C	800°C	1000°C	20°C	500°C			
8.0	15.0	16.0	17.0	17.5	18.5	12	17	0.55	1.0	No