

## Material data sheet

Material Number ~1.4878

Country U.S.A.

Designations 321 H (SAE); S32109 (SAE); 321 H (AISI); S32109 (UNS); A 182 (F 321 H) (ASTM); A 213 (321 H) (ASTM); A 240 (321 H) (ASTM); A 249 (321 H) (ASTM); A 312 (321 H) (ASTM); A 376 (321 H) (ASTM); A 403 (CR321H) (ASTM); A 403 (WP321H) (ASTM); A 479 (321 H) (ASTM); A 813 (321 H) (ASTM); A 814 (321 H) (ASTM); A 943 (TP321H)(S 32109) (ASTM); A 965 (F321H) (ASTM); SA 182 (321 H) (ASME); SA 213 (321 H) (ASME); SA 240 (321 H) (ASME); SA 249 (321 H) (ASME); SA 312 (321 H) (ASME); SA 376 (321 H) (ASME); SA 403 (321 H) (ASME); SA 479 (321 H) (ASME)

### Chemical composition

Element	min/max	Others
C	0,04-0,10	
Si	<=0,75	
Mn	<=2,00	
P	<=0,450	
S	<=0,030	
Cr	17,00-19,00	
Ni	9,00-12,00	
		Ti >= 4x(C+N) <= 0,70

# Material data sheet

Material Number 1.4878  
 Country Europe  
 Designations X8CrNiTi18-10

## Chemical composition

Element	min/max	Others
C	<=0,10	
Si	<=1,00	
Mn	<=2,00	
P	<=0,045	
S	<=0,015	
Cr	17,00-19,00	
Ni	9,00-12,00	Ti 5xC-0,80

## Mechanical properties

dimension	value	specimen	at temperature	cooling	duration
<i>Data from Stahlschlüssel book</i>					
Hardness [HB 30]					
	<=215HB30				
solution heat treated					
Yield stress					
	>=190N/mm <sup>2</sup>		~ 20 °C		
Tensile strength					
	500 - 720 N/mm <sup>2</sup>		~ 20 °C		
Elongation after fracture (A5)					
	>=40 %		~ 20 °C		
Creep limit 1.000 h (Rp 1,0)					
	~110N/mm <sup>2</sup>		~ 600 °C		
	~ 45 N/mm <sup>2</sup>		~ 700 °C		
	~15 N/mm <sup>2</sup>		~800 °C		
Creep rupture strength 10.000 h					
	~ 142 N/mm <sup>2</sup>		~ 600 °C		
	~ 48 N/mm <sup>2</sup>		~ 700 °C		
	~15 N/mm <sup>2</sup>		~ 800 °C		