

Alleima® 3R19

Tube and pipe, seamless

Datasheet

Alleima® 3R19 is an austenitic stainless steel with low carbon content alloyed with nitrogen.

Standards

- ASTM: TP304LN
- UNS: S30453
- EN Number: 1.4311
- W.Nr.: 1.4311*
- DIN: X 2 CrNiN 18 10*
- SS: 2371*
- AFNOR: Z2CN18-10Az*

* Obsolete. Replaced by EN.

Chemical composition (nominal)

Chemical composition (nominal) %

C	Si	Mn	P	S	Cr	Ni
≤0.030	0.4	1.3	≤0.040	≤0.030	18.5	9

Others
N=0.14

Mechanical properties

Metric units, at 20°C

Proof strength	Tensile strength	Elong.
$R_{p0.2}^{a)}$	R_m	$A^{b)}$
MPa	MPa	%
≥270	550-750	≥35

1 MPa = 1 N/mm²

a) $R_{p0.2}$ and $R_{p1.0}$ correspond to 0.2% offset and 1.0% offset yield strength, respectively.

b) Based on $L_0 = 5.65 \sqrt{S_0}$ where L_0 is the original gauge length and S_0 the original cross-section.

Imperial units, at 68°F

Proof strength	Tensile strength	Elong.
$R_{p0.2}^{a)}$	R_m	$A^{b)}$
ksi	ksi	%
≥39	≥80-109	≥35

a) $R_{p0.2}$ and $R_{p1.0}$ correspond to 0.2% offset and 1.0% offset yield strength, respectively.

b) Based on $LO = 5.65 \sqrt{SO}$ where LO is the original gauge length and SO the original cross-section.

Disclaimer:

Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Alleima materials.