



## CHRONIFER®

### Supra austenitic Stainless Steel

Material No.	DIN Abbreviation	AFNOR	AISI/SAE/ASTM	ISO	Euro Standard EN	Others
1.4301/ 1.4306	X5CrNi18-10/ X2CrNi19-11	X5CrNi18-10/ X2CrNi19-11 (former Z 6 CN 18.09) (former Z 2 CN 18.10)	AISI 304 (V2A)/ AISI 304L ASTM F899	X5CrNi18-9/ X2CrNi19-11	X5CrNi18-10/ X2CrNi19-11	NF S 94-090 JIS ~ SUS 304/ JIS ~ SUS 304L

Distinctive feature & main attribute: a rustproof chromium-nickel-steel alloy, being well applicable for welding but unsuitable for machining.

Use & application range: this alloy is widely deployed in the chemical industry, the oil industry, the watch, clock and knife industry but even so the medical technology or even common consumption goods.

REFERENCE ANALYSIS %	C	Si	Mn	P	S	Cr	Ni	N	Fe
	<b>max.</b> <b>0.03</b>	<b>max.</b> <b>1.00</b>	<b>max.</b> <b>2.00</b>	<b>max.</b> <b>0.045</b>	<b>max.</b> <b>0.03</b>	<b>18.00</b> <b>19.50</b>	<b>10.00</b> <b>10.50</b>	<b>max.</b> <b>0.10</b>	balance

<b>EXECUTION DELIVERY FORM STANDARD SIZES AVAILABILITY</b>	<ul style="list-style-type: none"> <li>• Size in 3 m (2 m) round or hexagonal bars as well as in rolled strips &amp; sheets but also in coils for Escomatic</li> <li>• Standard size in stock: see <a href="#">Product range</a></li> <li>• Other sizes on request</li> </ul>
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<b>TOLERANCES</b>	<ul style="list-style-type: none"> <li>• <math>\varnothing &lt; 2.00</math> mm, cold drawn, polished; ISO <b>h8</b></li> <li>• <math>\varnothing \geq 2.00</math> mm, cold drawn, ground, polished; ISO <b>h7 (h6)</b>; surface finish Ra 0.4 (N5)</li> <li>• Tighter tolerances on request</li> </ul>
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<b>MECHANICAL PROPERTIES</b>	<p>At delivery status:</p> <ul style="list-style-type: none"> <li>• Tensile strength (<math>R_m</math>): <ul style="list-style-type: none"> <li>a) <math>&lt; 13.00</math> mm: 700 – 950 MPa</li> <li>b) <math>\geq 13.00 - 16.00</math> mm: 600 – 950 MPa</li> <li>c) <math>&gt; 16.00</math> mm: 500 – 700 MPa</li> </ul> </li> </ul>
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<b>HEAT TREATMENT</b>	<ul style="list-style-type: none"> <li>• Soft annealing: 1050 °C, cooling in water</li> <li>• Hardening and tempering by heat treatment is impossible</li> </ul>
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<b>CUTTING RATES</b>	<p><math>v_c \sim 25 - 40</math> m/min, value depending on the lubrication oil, cutting tools and shape of parts.</p> <ul style="list-style-type: none"> <li>• Cutting oil: e.g. ORTHO NFX of Motorex</li> </ul>
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