

**Ferro-Titanit®****Cromoni**

<b>Chemical composition</b>	<b>Carbide phase</b>	<b>Binder phase (main components)</b>				
	<b>TiC</b> 22.0 (guideline values % by weight)	<b>Cr</b> 20.0	<b>Mo</b> 15.5	<b>Ni</b> Balance		
<b>Microstructure</b>	Titanium carbide + austenite					
<b>Characteristic properties</b>	Supplied in solution-annealed condition. Ferro-Titanit® Cromoni is non-magnetisable, even after ageing at temperatures up to 900 °C. Besides having a high wear resistance, this alloy is extremely resistant to corrosion and scaling, as well as highly tempering-resistant. This corrosion resistance is at its best with finely ground or polished surfaces.					
<b>Mechanical properties</b> age-hardened	<b>Density</b>	<b>Com- pression strength</b>	<b>Bending fracture</b>	<b>Modulus of elasticity</b>	<b>Service hardness</b>	<b>Further data on the mechanical properties upon request</b>
	<b>g/cm<sup>3</sup></b> 7.4	<b>MPa</b> 1500	<b>MPa</b> 1300	<b>MPa</b> 277000	<b>HRC</b> approx. 54	
<b>Physical properties</b>	<b>Thermal expansion coefficient between 20 and ... °C in 10<sup>-6</sup> · °C<sup>-1</sup></b>					
	100 9.0	200 10.0	300 10.5	400 10.8	500 11.1	600 11.5
	<b>Thermal conductivity at 20 °C in W · cm<sup>-1</sup> · °C<sup>-1</sup></b> 0.124					
	<b>Measuring frequency (Hz)</b>			<b>Damping Q<sup>-1</sup> (10<sup>-6</sup>)</b>		
	2400			6		
	6600			7		
	21000			11		
	<b>Electrical resistivity at 20 °C in Ω · mm<sup>2</sup> · m<sup>-1</sup></b> 1.53					
<b>Magnetic properties</b>	<b>Permeability μ</b> < 1.01					
<b>Use</b>	This austenitic grade is used for applications requiring complete non-magnetisability, a high wear resistance and maximum corrosion resistance.					
<b>Solution annealing</b>	<b>Annealing temperature °C</b> 1200 (2 h vacuum)		<b>Cooling</b> 4 bar N <sub>2</sub>	<b>Hardness after annealing HRC</b> approx. 52		
<b>Age-hardening</b>	<b>Age-hardening temperature °C</b> 800 (6 h vacuum)		<b>Hardness after age-hardening HRC</b> approx. 54			
	<b>Note</b> Machining according to guidelines, at lowest cutting speeds.					