

<b>DIN - Material - No.</b>	1.2436
<b>Code</b>	X210CrW12
<b>Comparable standards</b>	AISI: D6

<b>Chemical composition</b>	C	Si	Mn	Cr	W
(Typical analysis %)	2.12	0.25	0.45	12.00	0.70

**Steel properties** Ledeburitic chromium steel with high durability and cutting performance; low distortion on hardening.

<b>Physical properties</b>	Thermal conductivity W/(m.K)	20°C 24.1
	Density g/cm <sup>3</sup>	20°C 7.77

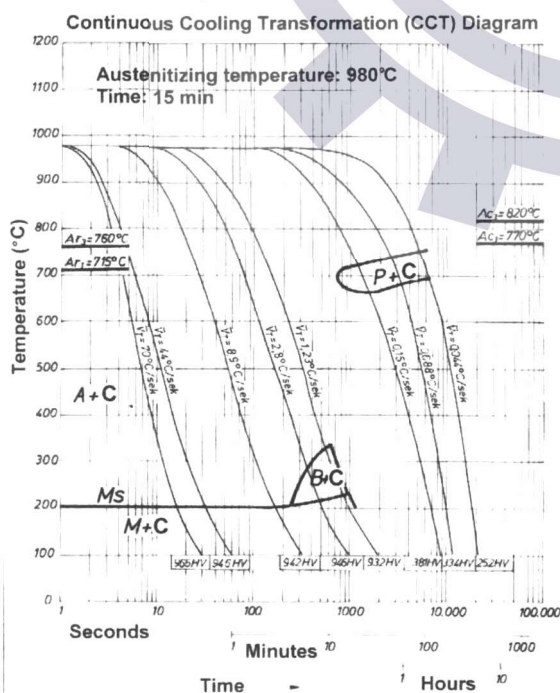
<b>Coefficient of linear thermal expansion</b>								
10 <sup>-6</sup> °C <sup>-1</sup>	20-100	20-200	20-300	20-400	20-500	20-600	20-700	20-800
	10.8	11.8	12.4	12.5	12.8	12.9	13.0	13.9

**Applications** Cutting tools for sheet metal thicknesses up to approx 2 mm, paper blades, stone compression moulds, section rolling-mill rolls, deep-drawing tools, pressing tools for ceramics and pharmaceutical industries, shear blades, plastic mould.

**Stress Relieving** Holding at approx 650°C for one - two hour.

<b>Heat treatment</b>	Soft annealing°C	Cooling	Hardness HB				
	800 - 840	Cool sloyly in furnace	max. 255				
	Hardening from°C	in	Hardness after quenching HRC				
	940 - 980	oil, air or warm bath	64 - 66				
	960 - 1000	500 - 550°C	64 - 66				
	Tempering °C	100	200	300	400	500	600
	HRC	63	62	60	58	56	48

**Time - Temperature - Transformation - Diagram**



**Tempering Diagram**

