Cryodur 2436

X210CrW12 | **C** 2.10 **Si** 0.35 **Mn** 0.35 **Cr** 12.00 **W** 0.70

Steel properties

12 % ledeburitic chromium steel with very high wear resistance and cutting edge retention as well as improved hardenability in comparison to Cryodur 2080.

Standards

AISI ~D6 **AFNOR** Z210CW12-01

Physical properties

Coefficient of thermal expansion							
at °C	20 – 100	20 – 200	20 – 300	20 – 400	20 – 500	20 – 600	20 – 700
10^{-6} m/(m • K)	10.9	11.9	12.3	12.6	12.9	13.0	13.2

Thermal conductivity			
at °C	20	350	700
W/(m • K)	16.7	20.5	24.2

Applications

Heavy-duty blanking dies for cutting transformer and dynamo sheets up to 2 mm thickness as well as for paper and plastics, deep-drawing tools, drawing dies and mandrels, shear blades, stone pressing tools.

Heat treatment

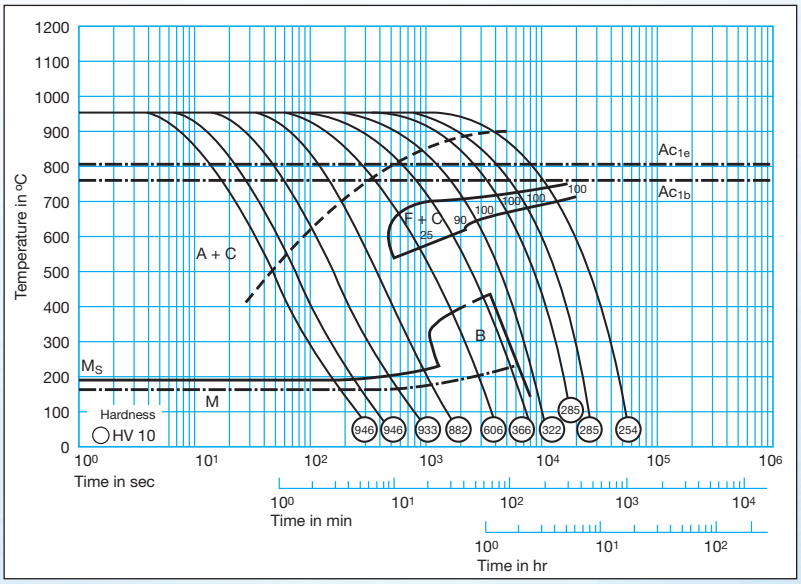
Soft annealing °C	**Cooling**	**Hardness HB**
800 – 840	Furnace	max. 250

Stress-relief annealing °C	**Cooling**
650 – 700	Furnace

Hardening °C	**Quenching**	**Hardness after quenching HRC**
950 – 980	Air, oil or saltbath, 500 – 550 °C	64

Tempering °C	100	200	300	400	500	600
HRC	63	62	60	58	56	48

Time-temperature-transformation diagram



Tempering diagram