

<b>GENERAL INFORMATION</b>	Stainless martensitic molybdenum-chrome steel with excellent resistance to corrosion, even better than the chrome steel(2083), good polishing and photoengraving properties. The chrome content of 16% gives this material an increased resistance to corrosion. Its good toughness/ductility is due to the improved micro-purity and structural homogeneity levels. It has good stress pressure resistance both in the centre and on the surface. Welding operations with methods such as TIG or MMA are possible.					
<b>APPLICATION</b>	Molds for corrosive materials (PVC, recycled polymers, etc), automotive industry (headlamp components), medical instruments, food industry, cosmetic industry, rubber pressing, dies and gauges, mechanical parts for extrusion presses, eg. Extrusion heads. Surface hardening can be made through various thermo-chemical surface processes or through the application of thin films (PVD) allowing an increase in wear resistance. It is also possible to harden the surface by ionic or saline nitriding.					
<b>COMPARABLE STANDARDS</b>	<b>AISI/SAE</b>	<b>DIN</b>	<b>W.Nr.</b>	<b>AFNOR</b>	<b>JIS</b>	<b>GB</b>
	-	X38CrMo16	1.2316	-	-	-
<b>CHEMICAL ANALYSIS (%)</b>	<b>C</b> 0.33~0.45 <b>Mn</b> ≤1.50 <b>Si</b> ≤1.00 <b>Cr</b> 15.50~17.50 <b>Mo</b> 0.85~1.30 <b>Ni</b> ≤1.00 <b>P / S</b> ≤0.030					
<b>HEAT TREATMENT</b>						
<p><b>Annealing:</b></p> <ul style="list-style-type: none"> <li>- heat to 770~820°C, with hold at minimum rate for 3 hours;</li> <li>- Furnace cooling to about 600°C</li> </ul> <p><b>Stress relieving:</b></p> <p>to be carried out after machining and before the final heat treatment.</p> <ul style="list-style-type: none"> <li>- Heating to 600~650°C for 2 hours.</li> </ul> <p><b>Hardening:</b></p> <ul style="list-style-type: none"> <li>- preheating to 600~700°C;</li> <li>- austenitizing at 1000~1040°C;</li> <li>- cooling in air, thermal bath at 500~550°C according to the steel shape and size.</li> </ul> <p>Quenched hardness 42~49 HRC.</p> <p><b>Tempering:</b></p> <p>to be carried out soon after the hardening according to the requested hardness; permanence for at least 2 hours; tempering must be repeated at least twice at a temperature 30°C lower than the previous. Cooling in air.</p>						

**Annealing Curve (only for reference):**