

<b>GENERAL INFORMATION &amp; APPLICATION</b>	Stainless martensitic steel with a high hardenability, good polishing properties, excellent resistance to corrosion and hot oxidation. Its applications are plastic moulds, particularly for acid aggressive plastics(e.g. acetate and PVC), or plastics containing abrasive fillers. Suited for the manufacture of glass, such as moulds of optical products.					
<b>COMPARABLE STANDARDS</b>	<b>AISI/SAE</b>	<b>DIN</b>	<b>W.Nr.</b>	<b>AFNOR</b>	<b>JIS</b>	<b>GB</b>
	-	X40Cr14	1.2083	-	SUS420	4Cr13
<b>CHEMICAL ANALYSIS (%)</b>	<b>C</b> 0.36~0.42	<b>Mn</b> ≤1.00	<b>Si</b> ≤1.00	<b>Cr</b> 12.50~14.50	<b>P / S</b> ≤0.030	
<b>HEAT TREATMENT</b>						
<p><b>Annealing:</b></p> <ul style="list-style-type: none"> <li>- heat to 750~800°C, with hold at minimum rate for 3 hours;</li> <li>- Furnace cooling.</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 990~1040°C;</li> <li>- cooling in oil, thermal bath at 500~550°C and finally in oil, considering the steel shape and size.</li> </ul> <p>Quenched hardness 52~56 HRC.</p> <p><b>Tempering:</b></p> <p>to be carried out after the hardening according to the required hardness; at 170~270°C in order to match hardness and resistance to corrosion; 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):**