

|   |  |
|---|--|
| Code  | X10CrMo17  |
| US standard (AISI)                          | 440C   |
| Composition<br>Alloying components [%]      | <ul style="list-style-type: none"> <li>■ C: 0.95 - 1.20</li> <li>■ Cr: 16.00 - 18.00</li> <li>■ Mn: 0 - 1.00</li> <li>■ Mo: 0.40 - 0.80</li> <li>■ P: 0 - 0.04</li> <li>■ S: 0 - 0.015 (0.030*)</li> <li>■ Si: 0 - 1.00</li> <li>■ Remainder: Fe</li> </ul>  |
| Stainless steel grade                       | C3   |
| Density [g/cm <sup>3</sup> ]                | 7.7  |
| Yield point<br>Rp0.2 [N/mm <sup>2</sup> ]   | ≥600   |
| Tensile strength<br>Rm [N/mm <sup>2</sup> ] | ≤850   |
| Corrosion resistance                        | <ul style="list-style-type: none"> <li>■ Medium</li> <li>■ Resistant to freshwater and water vapour as well as mildly aggressive cleaning agents</li> </ul>  |
| Machinability                               | poor   |
| Weldability                                 | not suitable   |
| Other properties                            | <ul style="list-style-type: none"> <li>■ Nickel-free martensitic ferromagnetic structure</li> <li>■ Special steel with very high resistance to wear</li> <li>■ Temperable to 61 HRC (Rm: &gt;2000 N/mm<sup>2</sup>)</li> <li>■ Can be mechanically polished to a brilliant sheen</li> <li>■ Suitability for electropolishing: medium</li> </ul>  |
| Main uses                                   | <p>Predominantly used for equipment and parts that are subject to heavy wear stress and require a high level of hardness:</p> <ul style="list-style-type: none"> <li>■ Knives</li> <li>■ Surgical cutting tools</li> <li>■ Mould inserts and active elements for plastics processing work involving chemically aggressive moulding compounds</li> <li>■ Shaped and flat knives for processing food and fish</li> <li>■ Corrosion-protected wear parts</li> </ul> |