

C ≤ 0,03 / Cr 16,5 – 18,5 / Ni 10,0 – 13,0 / Mo 2,0 – 2,5
1.4404 / X2 CrNiMo 17-12-2 / DIN EN 10088 / DIN 17440
AISI 316 L / BS 316 S 11 / SIS 2348*

Applications

Mechanical engineering; power stations; chemical and petrochemical industry; food industry; agricultural engineering; aviation; nautical gear; medicine and pharmaceuticals; military engineering; decoration and kitchen fittings; construction industry.

Processing techniques

Machining; open-die and drop forging; cold forming and cold upsetting.



Corrosion resistance ●●●●○

Compared to material 1.4301, material 1.4404 is characterised by its properties in numerous acids (sulphuric, phosphoric and organic acids) with a moderate chloride content, depending on the temperature and concentration.

Mechanical properties ●●○○○

Optimal processing properties are achieved by means of heat treatment in the temperature range of between 1000 and 1080 °C followed by rapid cooling in air or water.

Forging ●●●○○

Heating to 1150 °C without any special precautions. Hot forming in the range between 1150 and 950 °C. Cooling in air or water when distortion no longer appears feasible.

Welding ●●●●○

Material 1.4404 can be welded without difficulty.

Machining ●●○○○

Material 1.4404 shows a tendency towards work-hardening during processing. A sulphur content of 0.020 to 0.030 % has a beneficial effect.

Note

1.4404 can be weakly magnetic. The magnetizability can increase as the cold forming increases. The material can be polished.