

C ≤ 0,03 / Cr 17,0 – 19,0 / Ni 12,5 – 15,0 / Mo 2,5 – 3,0
1.4435 / X2 CrNiMo 18-14-3 / DIN EN 10088 / DIN 17440
AISI 316 L / BS 316 S 11 / SIS 2353*

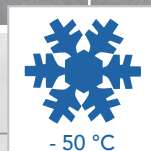


Applications

Medicine and pharmaceuticals; petrochemical industry; chemical industry; transportation/ automotive engineering

Processing techniques

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



Corrosion resistance ●●●●○

Compared to material 1.4301, material 1.4435 is characterised by its properties in numerous acids (sulphuric, phosphoric and organic acids) and in media with a moderate chloride content, depending on the temperature and concentration 1.4435 is known to be urea grade.

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 special precautions. Hot forming at 1150 to 950 °C. Cooling in air or water if distortion does not appear feasible.

Welding ●●●●●

Material 1.4435 can be welded without difficulty.

Machining ●●○○○

Material 1.4435 shows a tendency toward work-hardening during processing. A sulphur content of 0.020 to 0.030 % has a beneficial effect.

Note

Material 1.4435 can be weakly magnetic. The magnetizability can increase as the cold forming increases. The material can be polished.