

C ≤ 0,02 / Cr 19,0 – 21,0 / Ni 24,0 – 26,0 / Mo 4,0 – 5,0 / Cu 1,0 – 2,0 / N ≤ 0,15
1.4539 / X1 NiCrMoCu 25-20-5 / DIN EN 10088 / VdTÜV Blatt 421 (SEW 400)
AISI (904L) / SIS 2562*



Applications

Pulp industry; chemical industry; environmental technology; military engineering; marine technology; medicine and pharmaceuticals.

Processing techniques

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



Corrosion resistance ●●●●●

Due to the high fraction of alloying elements, the corrosion resistance is clearly better than that of other austenitic CrNiMo materials. 1.4529 is particularly suitable in media inducing pitting or stress corrosion cracking (e.g. saltwater up to 70 °C, concentrated solutions of sulphuric and phosphoric acid). The corrosion resistance is higher than that of material 1.4539.

Mechanical properties ●●○○○

Optimal processing properties are achieved by means of heat treatment in the temperature range of between 1040 and 1120 °C followed by rapid cooling in air or water. Owing to the increased nitrogen content, 1.4439 exhibits higher elastic limits than 1.4435, which can be advantageous for pressure-bearing components.

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 1.4439 can be welded without difficulty.

Machining ●○○○○

Material 1.4439 shows a tendency towards work-hardening during processing.

Note

1.4439 can be weakly magnetic. The magnetizability can increase as the cold forming increases. The material can be polished.