

C ≤ 0,08 / Cr 17,0 – 19,0 / Ni 9,0 – 12,0 / Ti 5xC bis 0,7
1.4541 / X6 CrNiTi 18-10 / DIN EN 10088 / DIN 17440
AISI 321 / BS 321 S 31 / SIS 2337*



Applications

Chemical industry; power stations; mechanical engineering; transportation/automotive engineering; food industry/agricultural engineering; aviation; military engineering.

Processing techniques

Machining; open-die and drop forging.



Corrosion resistance ●●●○○

Compared to material 1.4301, material 1.4541 is characterised by its properties in nitric acid and in organic cooled acid solutions.

Mechanical properties ●●○○○

Optimal processing properties are achieved by means of heat treatment in the temperature range of between 1020 and 1100 °C followed by rapid cooling in air or water.

Forging ●●○○○

Slow heating to 1150 °C. Hot forming at 1150 to 950 °C. Cooling in air or water.

Welding ●●●●○

Material 1.4541 can be welded without difficulty.

Machining ●○○○○

Material 1.4541 shows a tendency towards work-hardening during processing. A sulphur content of 0.020 to 0.030 % has a beneficial effect.

Note

1.4541 can be weakly magnetic. The magnetizability can increase as the cold forming increases.