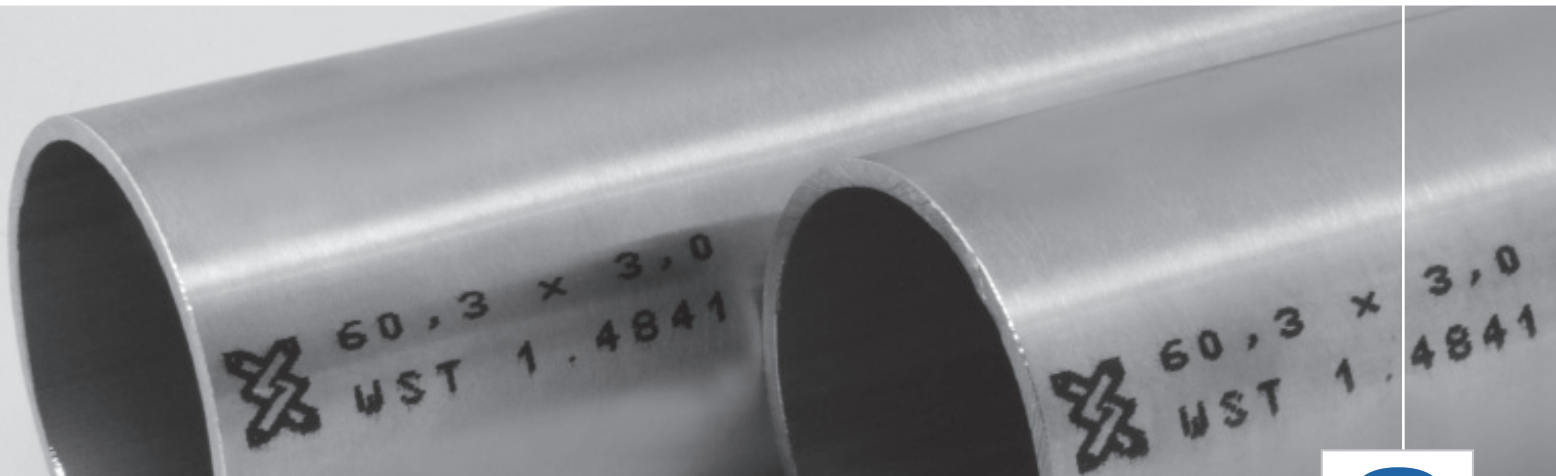


C ≤ 0,20 / Cr 24,0 – 26,0 / Ni 19,0 – 22,0 / Si 1,5 – 2,0
1.4841 / X15 CrNiSi 25-20 / DIN EN 10095 / SEW 470
AISI 314 / BS 314 S 25*



Applications

Chemical industry; power stations; mechanical engineering; environmental technology

Processing techniques

Machining; open-die and drop forging.



Scaling resistance ●●●●●

1.4841 is used at temperatures of up to 1150 °C. Owing to the occurrence of the brittle sigma phase, the steel should not be used continuously at temperatures of between 600 and 900 °C. Limiting temperatures in continuous operation: Oxidising atmosphere: 1125 °C; Oxidising sulphur-containing atmosphere: 1000 °C; Reducing carbon-containing atmosphere: 1050 °C; Reducing sulphur-containing atmosphere: 1000 °C.

Mechanical properties ●●○○○

Austenitic heatproof materials are characterised by good heat resistance when subjected both to short- and long-term stress at temperatures exceeding 550 °C. The suitability in each case is determined by the intended stress.

Forging ●●○○○

Heating without special precaution to 1150 °C followed by rapid cooling in water or air.

Welding ●●●●○

1.4841 can be welded without difficulty using all processes.

Machining ●○○○○

Owing to the austenitic microstructure, poorer machinability than heatproof, ferritic materials.

Note

Heat treatment is recommended after hot and severe cold forming.