

Data sheet and application

DIM L-1.4542 (u. L-17.4PH) ©

Material no.: 1.4542

EN SG X 5 CrNiCuNb16-4 / BS X5CrNiCuN 16-4 / AFNOR Z 7 CNU 17-04

ASTM 17.4 PH A 747 (CB-7Cu-1) AFNOR Z 7 CNU 15-05

NF EN 10088-3 W 1.4542 / 1.4548 X5CrNiCu17-4 DMR 34 COULEE E10017

AISI 630 / UNS SI 7480 / STS630 / SUS630 / S51748 / S17400

AMS 5825 AISi630 AWS A5.9 ER630 (mod.) 327 (old) ASME SFA5.9 ER630

Stainless, martensitic steel.

Belongs to the most important, hardenable steels.

Characteristics

DIM L-1.4542 is a martensitic precipitation hardening solid wire electrode, with excellent combination of high strength, high wear resistance, high yield strength, good corrosion resistance and good mechanical properties at temperatures up to 350 °C. A further increase in strength can be achieved by cold-hardening and swaging.

Application areas

Aerospace, rocket construction, plant construction, shipbuilding, petroleum, paper and wood industries, energy, measurement and control technology, water and steam turbines, processing equipment, extrusion lines, pressure vessels, bellows, diaphragm assemblies, pipe constructions, mechanical engineering.

Materials

1.4542 / 1.4548 / 1.4545 / 17.4 PH

ASTM: A564 / A705 / A693

AMS: 5643 / 5622 / 5398 / 5342-44 / 5604 / 5529 / 5528 / 5568

Chemical composition

C	Si	Mn	Cr	Ni	Cu	+P+S+Cb u. Ta+Mo
0,03	0,5	0,6	16,5	4,7	3,5	Restbestände

Certificate of batch upon request.

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Mechanical properties of pure weld material

Yiel strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A (L0=5d0) %
1000 N/mm ²	1100 N/mm ²	< 10

Brinell-hardness	Heat treated HRC
327	44-48

Processing instructions

Protection gas: Argon + max. 2.5% CO₂