

1.4828

Heat-resisting steel · No. 1.4828

1.4828 (X15CrNiSi20-12) is a heat-resisting austenitic steel to EN 10095. Around 20 % chromium together with the raised silicon content forms a tightly adhering oxide layer – in air the material is therefore scaling-resistant to about 1000 °C.

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MATERIAL NO.

≥ 230 MPa

YIELD STRENGTH RP0.2

550–750 MPa

TENSILE STRENGTH RM

**scaling-resistant in
air to ~ 1000 °C**

SERVICE TEMP.

Application & properties

- Furnace construction: muffles, hearth plates, annealing baskets and charging frames
- Recuperators, radiant tubes and heat-treatment plant
- Flue-gas ducts and hot-gas lines
- Waste-to-energy: components on the hot gas side

Chemical composition

Element	Content (%)
C	≤ 0.20
Si	1.50–2.50
Mn	≤ 2.00
P	≤ 0.045
S	≤ 0.015
Cr	19.0–21.0
Ni	11.0–13.0

Mechanical properties

Property	Value
Yield strength Rp0.2	≥ 230 MPa
Tensile strength Rm	550–750 MPa
Elongation A	≥ 30 %

Standards, equivalents & product forms

Topic	Detail
Standards	EN 10095 (heat-resisting steels)

Topic	Detail
ASME/ASTM equivalent	~ AISI 309 (related)
Material no.	1.4828
Short name / aka	X15CrNiSi20-12 · heat-resisting austenite

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All data are typical values per the relevant EN standards for first orientation – without warranty. The applicable standard and the mill certificate of the delivery are decisive.

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