

CREEP RESISTANT STEELS

Available Product Shapes

Long Products

Product Description

Especially recommended for turbine blades.

Properties

Creep resisting steel, hardened and tempered. Usual upper temperature limit for continuous operating at 550°C.

Applications

> Blades & Shafts for Turbines and Compressors

> Other Power Generation Components

| Material designation | | Standards | |
|----------------------|--------------|-----------|------|
| 1.4021 | SEL | A370 | ASTM |
| X20Cr13 | EN | | |
| 420 | AISI | | |
| X20 | Market grade | | |

Chemical composition

| C | Si | Mn | Cr |
|------|------|------|-------|
| 0.21 | 0.35 | 0.50 | 13.30 |

Thermal Expansions

| Temperature (°C / °F) | 100 / 212 | 200 / 392 | 300 / 572 | 400 / 752 | 500 / 932 |
|---|--------------|------------|--------------|------------|--------------|
| Thermal expansion (10 ⁻⁶ m/(m.K) / 10 ⁻⁶ inch/(inch.F)) | 10.5 / 5.833 | 11 / 6.111 | 11.5 / 6.389 | 12 / 6.667 | 12.3 / 6.833 |

For more information see www.voestalpine.com/boehler-edelstahl

