

ACIERS RÉSISTANTS AU FLUAGE

Segment d'application

Land Based Turbines

Variantes de produits disponibles

Produit long*

*) Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Description du produit

This specification covers a corrosion and heat resistant steel in the form of bars, wire, forgings and forging stock. It is an austenitic, precipitation hardenable, iron-nickel-chromium-molybdenum-titanium steel of ESR quality. Alloying elements of aluminium and titanium allow this material to undergo precipitation hardening (ageing) through the formation of intermetallic phases. The addition of molybdenum increases the mechanical properties and resistance to creep at high temperatures. These products have been typically used for parts in power generation engineering i.e. gas turbines requiring moderate strength up to 704 °C (1300 °F) and oxidation resistance up to 816 °C (1500 °F), but their use is not limited to such applications.

Procédé d'élaboration

Airmelted + ESR

Applications

- > Mécanique générale / machines-outils
- > Energie (gaz/vapeur/ nucléaire)
- > Autres composants automobiles (turbocompresseurs, segments de piston, capteurs, etc.)
- > Aubes et arbres de turbine et compresseurs
- > Autres composants de production d'énergie électrique

Données techniques

| Désignation normalisée | | Normes | |
|------------------------|--------------|---------------|--------|
| Alloy 286 | Market grade | VdTÜV WB435/3 | Others |
| 1.4980 | SEL | | |
| X6NiCrTiMoVB25-15-2 | EN | | |
| S66286 | UNS | | |

Composition chimique

| C | Si | Mn | P | S | Cr | Mo | Ni | V | Ti | B |
|---------------|---------------|---------------|---------------|---------------|--------------------------|------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|
| max. 0,080 | max. 1,000 | max. 2,000 | max. 0,030 | max. 0,030 | 13,500 jusqu'à 16,000 | 1,000 jusqu'à 1,500 | 24,000 jusqu'à 27,000 | 0,100 jusqu'à 0,500 | 1,900 jusqu'à 2,300 | 0,003 jusqu'à 0,010 |

Refers to VdTÜV 435/3

Condition de livraison

Solution annealed + precipitation hardened

| | |
|--------------------------------|-------------------|
| Résistance à la traction (MPa) | 900 jusqu'à 1 200 |
| Yield Strength (MPa) | min. 600 |

Barres rondes et fil machine (le cas échéant)

| Diamètre mm | |
|----------------|----------|
| CERCLE | |
| 12,50 | - 130,00 |
| FORMÉ | |
| 130,10 | - 254,00 |

More information regarding MOQ, lengths and tolerances upon request. Flat bar on request.

Long Products: For additional specifications, technical requirements, and other dimensions, please contact our regional voestalpine BÖHLER sales companies.

Open Die Forgings: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact the business unit Open Die Forgings of voestalpine BÖHLER Edelstahl GmbH & Co KG.

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.