CORROSIONS-RESISTANT STEELS - AUSTENITIC STEELS AND NON MAGNETIC STEELS

Application Segments

Engineering

Available Product Variants

Long Products

Product Description

BÖHLER P504 is a wrought nitrogen strengthened 21chromium—10nickel—3manganese—2.5molybdenum stainless steel for surgical implants. It is a highly corrosion resistant non-magnetisable stainless austenitic steel - nitrogen alloyed - resistant to intergranular corrosion. Compared to standard Cr-Ni-Mo steel, it offers increased strength and thus also better fatigue properties. The steel is produced as remelt grade and thus fulfils the usual requirements for steel purity as specified for implant material.

Process Melting

Airmelted + ESR

Applications

- Medical
- Medical Instruments & Implants
- Medical Industry

Technical data

Material designation	
REX 734	Market grade
S31675	UNS

Standards	
F1586	ASTM
ISO 5832-9	Others

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Nb	N
max. 0.08	max. 0.75	2.00 to 4.25	max. 0.025	max. 0.01	19.5 to 22.0	2.0 to 3.0	9.0 to 11.0	max. 0.25	0.25 to 0.80	0.25 to 0.50

Related to ASTM F1586

Delivery condition

Solution Annealed + Quenched	
Tensile Strength (MPa)	min. 740
Yield Strength (MPa)	min. 430

Round Bars and Wire Rod (if any)

Diameter* mm		
ROLLED		
5.00	-	13.50

* Diameter 5.00 - 13.50 mm available as Wire Rod.

More information regarding MOQ and tolerances upon request.

If other available product variants are listed in addition to long products, please note that these may differ in terms of melting process, technical data, delivery and surface condition as well as available product dimensions. For mandatory technical specifications, other requirements and dimensions, please contact our regional voestalpine BÖHLER sales companies. 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.

voestalpine BÖHLER Edelstahl GmbH & Co KG
Mariazeller Straße 25
8605 Kapfenberg, AT
T. +43/50304/20-0
E. info@bohler-edelstahl.at
https://www.voestalpine.com/bohler-edelstahl/de/

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ONE STEP AHEAD.