5R62/3R65 Datasheet
Medical Wire

Zapp is certified according to ISO 9001

5R62 and 3R65

are austenitic stainless steels alloyed with molybdenum. 3R65 is a low carbon version of 5R62.
The grades are characterized by:

- Good resistance to general corrosion and better resistance to pitting than ASTM 304, because of the alloying with Mo.
- High tensile strength

Product Standards

- ASTM F899
- ISO 16061

Standards

- ASTM: 316/316L
- UNS: S31600/ S31603
- ISO: 316/316L
- EN Number: 1.4401/1.4404
- EN Name: X5CrNiMo17-12-2/X2CrNiMo17-12-2
- W.Nr.: 1.4401/1.4404
- JIS: SUS316/SUS316L

Applications

5R62 and 3R65 are mainly used for medical and dental tools

Chemical Composition (nominal) %

	C	Si	Mn	Cr	Ni	Mo
5R62	≤ 0.06	≤ 0.7	≤ 1.8	17.0	11.0	2.3
3R65	≤ 0.03	≤ 0.7	≤ 1.8	17.0	11.5	2.3

Forms of Supply

Wire form

- In coils with weights up to 150 kg
- On various types of spool with wire weights up to 500 kg
- In straightened lengths up to 4 m

Surcafe finishes and size range

Surface finish	Size range, mm
Coated	0.23 – 8.00
Bright	0.15 – 0.80
Mechanically polished	0.40 – 6.00

Corrosion Resistance

Excellent corrosion resistance in a range of atmospheric environments and various corrosive media.
Subject to pitting and crevice corrosion in warm chloride media and to stress corrosion cracking at temperatures above around 60 °C.
Considered resistant to potable water with up to approximately 1000 mg/l chlorides, at ambient temperatures, reducing to approximately 500 mg/l, at 60 °C.

Physical Properties

Typical physical properties for annealed 5R62 and 3R65 are given below:

Grade	Density g/cm³	Elastic Moduls 10³MPa	Mean Coefficient of Thermal Expansion mm/m/°C	Thermal Conductivity W/m °C	Specific Heat J/kg °C	Resistivity µΩm
			0 – 100 °C	at 100 °C	0 – 100 °C	20 °C
5R62/3R65	8	193	16	16	500	0.74

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