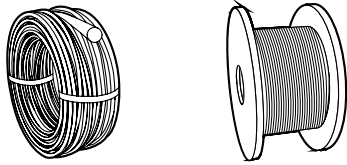


Zapp 1RK91 Medical Wire Datasheet

Stainless Wire



Zapp is certified to ISO 9001



High Performance Wire Materials

Zapp 1RK91 is a precipitation hardening stainless steel, which uses nanotechnology techniques to combine very high strength with good ductility:

Specially developed as a medical material, the grade combines high strength with good ductility in the final product and provides high formability in the as-delivered condition.

Exceptional Properties

By manipulating the material at the molecular level, heat treatment of nanometer-sized particles in Zapp 1RK91 produces a range of exceptional properties. The mechanical properties and ductility in the unaged condition make medical devices easier to form and machine and once produced can be age hardened to enhance the material's strength.

This combination of properties, together with a range of surface finishes available means that Zapp 1RK91 wire is already finding applications in the manufacture of lighter, thinner ophthalmic, plastic surgery and general suture needles with the potential for less tissue damage and corresponding patient benefits.

In Vitro Testing Confirms Global Standards Met

Tests confirm that Zapp 1RK91 has no cytotoxic potential under in vitro testing. It also meets all necessary global standards related to allergies and skin irritations.

Main Characteristics of Zapp 1RK91

- _ Excellent mechanical properties; very high tensile strength and hardness levels
- _ Corrosion resistance comparable with grades of types ASTM 304L and 316L
- _ Good ductility
- _ Retained mechanical properties at temperatures up to at least 400 °C (750 °F)
- _ Very good relaxation properties
- _ Good weldability

Zapp Precision Metals (Sweden) AB

PRECISION WIRE

Järnverksleden 18

81 134 Sandviken

Sweden

Phone +46 26 191800

precisionmetals-sweden@zapp.com

www.zapp.com

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