



VASCULOY®

The Nickel Free **Vascular Alloy** for Implants.

Facts about VASCULOY®

- ✓ The only nickel free alloy applicable to stents
- ✓ Best performing biocompatibility with significant benefits, especially for nickel sensitive patients
- ✓ Mechanical properties superior to conventional 316L (316LVM) stainless steel and comparable to L605
- ✓ Excellent MRI compatibility, with significant reduced artifacts in comparison to 316L
- ✓ Best corrosion resistance in comparison to 316L and L605
- ✓ Lower restenosis rates for nickel sensitive patients

✓ **NICKEL FREE**

✓ **COBALT FREE**

ISO
9001 + 13485

MeKo

25 Years of
Experience

MeKo

Made in
Germany

MeKo

Studies show that approximately 13 % of the population are allergic to nickel with a strong upward trend. Other people suffer from cobaltism. Therefore, MeKo has developed an implant alloy especially dedicated to vascular applications like stents. **VASCULOY®** improves the biocompatibility through freedom of nickel and freedom of cobalt.

VASCULOY® - The vascular alloy you can rely on.

VASCULOY® | For Reduced Restenosis Rates

The **mechanical properties** of VASCULOY® like strength and break elongation are superior to 316L and comparable to L605. As a matter of principle the recent L605 stent designs can be switched to VASCULOY® without design changes. Therefore, stent designs with thin struts, high flexibility and positive clinical results are ensured.

The **corrosion resistance** of VASCULOY® far better in comparison to L605 and 316L. The Protection Potential, an important attribute for stents, is significantly higher. The reduced ion release of VASCULOY® is highly recommended for stents.

VASCULOY® is **MRI compatible**. Compared to 316L, the artifacts are reduced by 55 %.

The biocompatibility of VASCULOY® has been proven with no limitation or restrictions.

Truly nickel free, VASCULOY® is superior to all commonly used implant materials. For nickel-allergic persons the restenosis rate will be reduced.



Production

VASCULOY® is produced utilizing high quality melting processes to assure microstructural integrity and cleanliness. These features facilitate brilliant products with a high-quality surface finish. In combination with the excellent mechanical properties, superior corrosion resistance, MRI-compatibility and unrestricted biocompatibility, outstanding stent performances are ensured, differentiating VASCULOY® from other stent materials.

Available Information for VASCULOY®

Mechanical Properties

- ✓ Ultimate Strength R_m
- ✓ Yield Strength $R_{p0.2}$
- ✓ Break Elongation A_t

Corrosion test data from cyclic potentiodynamic polarization measurements

- ✓ Breakdown Potential E_b
- ✓ Rest Potential E_r
- ✓ Protection Potential E_p

MRI compatibility

- ✓ Magnetic Displacement Force
- ✓ Radio Frequency Induced Heating
- ✓ MR Image Artifacts

Biocompatibility investigations according to ISO 10993

- ✓ Cytotoxicity Test
- ✓ Hemolysis Test
- ✓ Chemical Analysis (metal ion quantification)

MeKo - Competence in Stent and Vascular Implant Supply

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