



RESOLOY®

The resorbable magnesium alloy for stents ✓

Properties of RESOLOY®

- ✓ bioresorbable → „leaving nothing behind“
- ✓ biocompatibility
- ✓ degradation time adjustable by customized coatings
- ✓ improved break elongation
- ✓ improved ultimate strength
 - reduced stent strut thickness
 - small crossing profile
 - higher lumen patency
- ✓ MRI compatibility

ISO
9001 + 13485

MeKo

25 Years of
Experience

MeKo

Made in
Germany

MeKo



With **RESOLOY®** MeKo offers a bioresorbable magnesium-alloy with extraordinary properties. **RESOLOY®** is an attractive alternative to polymer stents. In comparison to PLLA, it offers about 3 times higher strength, thinner struts, a higher radial force and is applicable for direct stenting. The degradation time of **RESOLOY®** can be adjusted by coatings. It has a proven biocompatibility, no shelf life and no temperature issues.

MeKo - competence in contract manufacturing of stents and vascular implants

MeKo capabilities for magnesium stents

- ✓ laser cutting
- ✓ electro polishing
- ✓ heat treatment
- ✓ coatings for degradation control
- ✓ degradation testing
- ✓ support for stent registration

Tubing in stock

Ø 1,80 mm x 0,160 mm (Ø 0.071" x 0.0063")

Ø 2,20 mm x 0,160 mm (Ø 0.087" x 0.0063")

Ø 3,15 mm x 0,215 mm (Ø 0.124" x 0.0085")

Other tubing dimensions upon request.

Degradation control and adjustment of **RESOLOY®** Mg-stents

inorganic coatings



modification
of outer zone

inorganic surface
coating / layer

organic coatings



non-resorbable
polymer coating

resorbable
polymer coating

Custom designed coatings of **RESOLOY®** Mg-stents result in reduced degradation and long term radial strength.



Degradation Test Lab

MeKo performs in-vitro degradation tests for magnesium stents:

- ✓ simulated blood circulation
- ✓ controlled flow rate, pressure, pulsation and temperature of circulation
- ✓ blood substitute solution for standardized tests: PBS, SBF, ...
- ✓ accelerated in-vitro degradation tests
 - ✓ fast and reproducible evaluation of degradation
 - ✓ monitoring and visualization of degradation process
 - ✓ prediction of in-vivo degradation behavior

RESOLOY® has been developed and internationally patented by MeKo Laser Material Processing.
US patents: 9,566,367 B2 & 9,522,219 B2, EU patents: 2744531 & 2744532

MeKo Laser Material Processing

Im Kirchenfelde 12-14
31157 Sarstedt / Hannover
Germany

Tel. +49 5066 7079-0
Fax +49 5066 7079-99
E-Mail Laser@MeKo.de