



Properties of Paliney® 500 - Invivo

The family of Paliney Invivo materials were developed as a cost effective alternatives to platinum and gold based alloys used for implantable and interventional medical devices. The materials exhibit equivalent mechanical, biocompatible (per ISO 10993) and radiopaque characteristics but typically cost less than half of the platinum or gold alloys they replace.

Mechanical and Electrical Properties - Wire, 0.015 - 0.075

| Properties of Paliney 500 | Condition | | |
|--|-----------|---|-----------------|
| | Annealed | Cold Worked | Stress Relieved |
| Ultimate Tensile Strength (ksi) | 50-100 | 120-160 | 65 - 105 |
| Yield Strength (ksi) | 35-75 | 100-140 | ---- |
| Elongation (% in 2 in) | 11 min | --- | 10 min |
| Hardness (Knoop) | 145-225 | 275-325 | 175-260 |
| Electrical Conductivity (%IACS, Nominal) | 7.6 | ---- | ---- |
| Physical Properties | | | |
| Modulus of Elasticity (x 10 ⁶ psi, Nominal) | 17 | Solidus (Deg C) | 1,575 |
| Density (dwt / in ³ , Nominal) | 128.9 | Coefficient of Linear Thermal Expansion (x 10 ⁻⁶ / °C , 35 °C to 500 °C) | 11.1 |

Cytotoxicity- Elution Method (ISO 10993-5)

Result -no evidence of causing cell lysis or toxicity

Irritation and Sensitization - aqueous and organic extraction (ISO 10993-10)

Result -both aqueous and organic extractions

Primary Irritation Index was negligible for aqueous solvent, (0.0-0.5 for organic solvent)

No evidence of significant irritation from injected extract

Systemic Toxicity - aqueous and organic extraction (ISO 10993-11)

Result- both aqueous and organic extraction - no mortality and no evidence of systemic toxicity

In Vitro Hemolysis – aqueous extraction (modified ASTM) (ISO 10993-4)

Results - aqueous extraction (modified ASTM)

Mean hemolytic index is 0.0%

Test article extract is nonhemolytic

Muscle Implant – 2, 12 and 26 week exposure tests (ISO 10993-6)

Results -2, 12 and 26 week rabbit implant tests - classified as nonirritant in all tests

The information contained in this Data Sheet is intended to assist you in the use of this product. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular application. The user should determine the suitability of this material for each application. Data is subject to change without notice.

For More Information

[Contact Us to discuss your application with one of our Materials Specialists.](#)