

## Properties of Paliney® 1100 - 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, 0.002 -0.010

Properties of Paliney 1100		Condition	
		Stress Relieved	
Ultimate Tensile Strength (ksi)		180-235	
Yield Strength (ksi) 0.2%		160-215	
Elongation (% in 2 in)		2.5 min	
Hardness (Knoop)		330-390	
Electrical Conductivity (%IACS, Nominal)		4.6	
Physical Properties			
Modulus of Elasticity (x 10 <sup>6</sup> psi, Nominal)	26.5	Solidus (Deg C)	1,625
Density (dwt / in <sup>3</sup> , Nominal)	132	Coefficient of Linear Thermal Expansion (x 10 <sup>-6</sup> / °C , 35 °C to 500 °C)	11.6

#### 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

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#### For More Information

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