

The ecological choice

Wieland L96, the green alternative
to beryllium coppers



Wieland's solution for miniaturized springs

Strip made of L96 – CuNi9Sn6 – Beryllium-free

Due to the toxicity of the element beryllium, the material group of beryllium coppers (CuBe) has come to be regarded as hazardous for health and the environment. With the alloy L96 (CuNi9Sn6) Wieland offers an ecological alternative. The combination of high tensile strength, high resistance to thermal relaxation and very good formability make Wieland L96 an excellent choice for a variety of applications.

A broad application spectrum

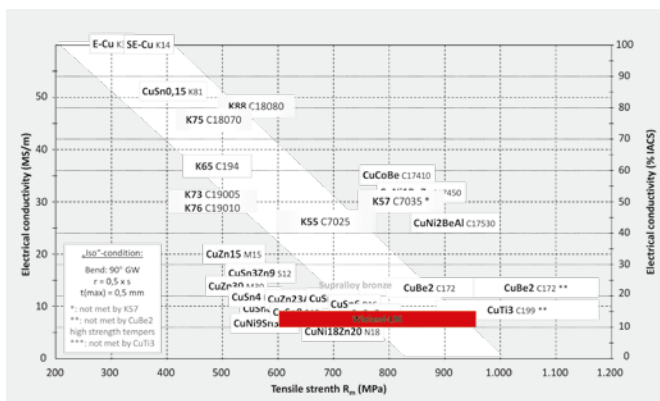
Wieland L96 exhibits similar properties to copper beryllium. In the conductivity-strength diagram, L96 is located in a high strength but lower conductivity position. Very high strength in combination with high thermal relaxation resistance make L96 an ideal material for the production of reliable connectors for telecommunications and automotive industries. L96 may further be used for low current

applications, such as springs in mobile phones, EMI shields in servers, as well as in miniaturized signal connectors – all of which require thin strip gauges and high spring forces provided by the strip. Further potential for using L96 is seen in board-to-board connectors and miniaturized switches.

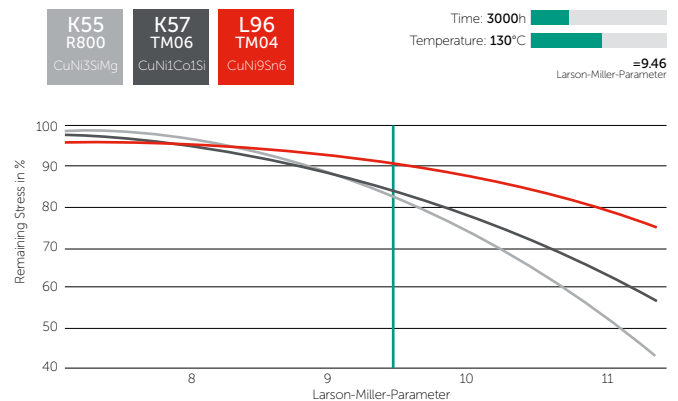
Treated according to your needs

L96 is age hardenable. Precipitates formed in the microstructure by age hardening result in very high

strength and outstanding levels of thermal relaxation resistance. Wieland delivers L96 in two different conditions: TM tempers which are treated with precipitation hardening at the Wieland factory as well as the non-hardened TD and TB tempers. These are age hardened in the final shape of the component not at Wieland, but at the customer after the stamping-bending process. In this way crack-free complex bends may be achieved.



Position of L96 in the conductivity-strength diagram



Thermal relaxation resistance of L96 TM04 in comparison to K55 R800 and K57 TM06

Wieland L96 Your benefits

- L96 exhibits similar properties as beryllium coppers but does not contain the toxic element beryllium.
- The material is characterized by high tensile strength, high resistance to thermal relaxation and very good formability.
- L96 can be delivered in age hardened condition from the mill or non-hardened with the possibility of hardening at the customer site after processing

Do You Want to Learn More About Wieland L96?

Please join our website and use our wieland-knowledge based program Alloywizard
www.wieland-alloywizard.com

Do you want to test L96 in your production?

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