

Effective spring forces

Wieland K55 R800 high-strength temper
in high strip thickness



Wieland's solution for high spring forces

Strip made of K55 R800 – CuNi3SiMg – C70250

In view of increasing requirements to electric and electronic components as well as of modern connecting technologies for well conducting, fatigue-proof, corrosion resistant and sealing connections, high-performance copper materials are becoming more and more important. On the other hand, miniaturization of electronic and electromechanical components is the driving force for developments of high-performance copper alloys for automotive and computer technologies.

Wieland now offers K55 R800 (CuNi3Si1Mg with a tensile strength of min 800 MPa) in strip thicknesses up to about 1.5 mm – ideal for all applications requiring high spring forces and thick strip gauges.

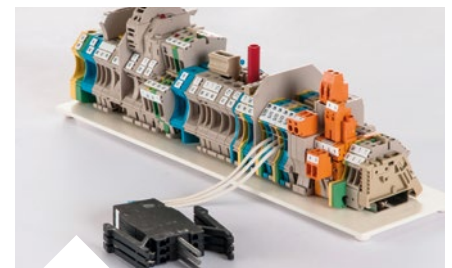
Perfectly suited for terminal blocks

Wieland K55 R800 exhibits excellent strength and thermal relaxation resistance while maintaining acceptable electrical conductivity. This property combination is due to the ability of the material to form

hardening precipitations inside the crystal lattice. As the electrical industry's demand towards strip with higher yield strength for springs inside terminal blocks is growing, Wieland developed the K55 temper R800 with extended thickness. Even at a thickness of 1.5 mm the material is able to provide high spring forces over a long time period even if service temperatures are elevated. Wieland K55 R800 is therefore perfectly suited for applications such as terminal blocks.

Reliable in tough conditions

The properties of K55 R800 also render it ideal for application in the automotive and multimedia sectors. Components in automobiles have to operate in wide temperature ranges clearly above 130 °C under the hood. Good formability, excellent resistance against stress relaxation and against fatigue damage, as exhibited by K55 R800, are therefore essential for good reliability throughout the life-time of vehicles or multimedia devices.



Terminal blocks contain springs made of high-performance alloys, such as Wieland-K55 R800

Wieland-K55 R800 Your benefits

- K55 R800 is characterized by excellent strength and an acceptable electric conductivity.
- The material provides high spring forces even at high strip gauges of 1.5 mm.
- Excellent resistance against stress relaxation and fatigue behavior make it a fitting material for applications with exposure to high temperatures.

Do You Want to Learn More About Wieland K55 R800?

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

Do you want to test Wieland K55 R800 in your production?

Please contact the technical marketing of the Business Unit Rolled Products:

- P Europe +49 731 944 2277
- P Asia +65 686 92 696