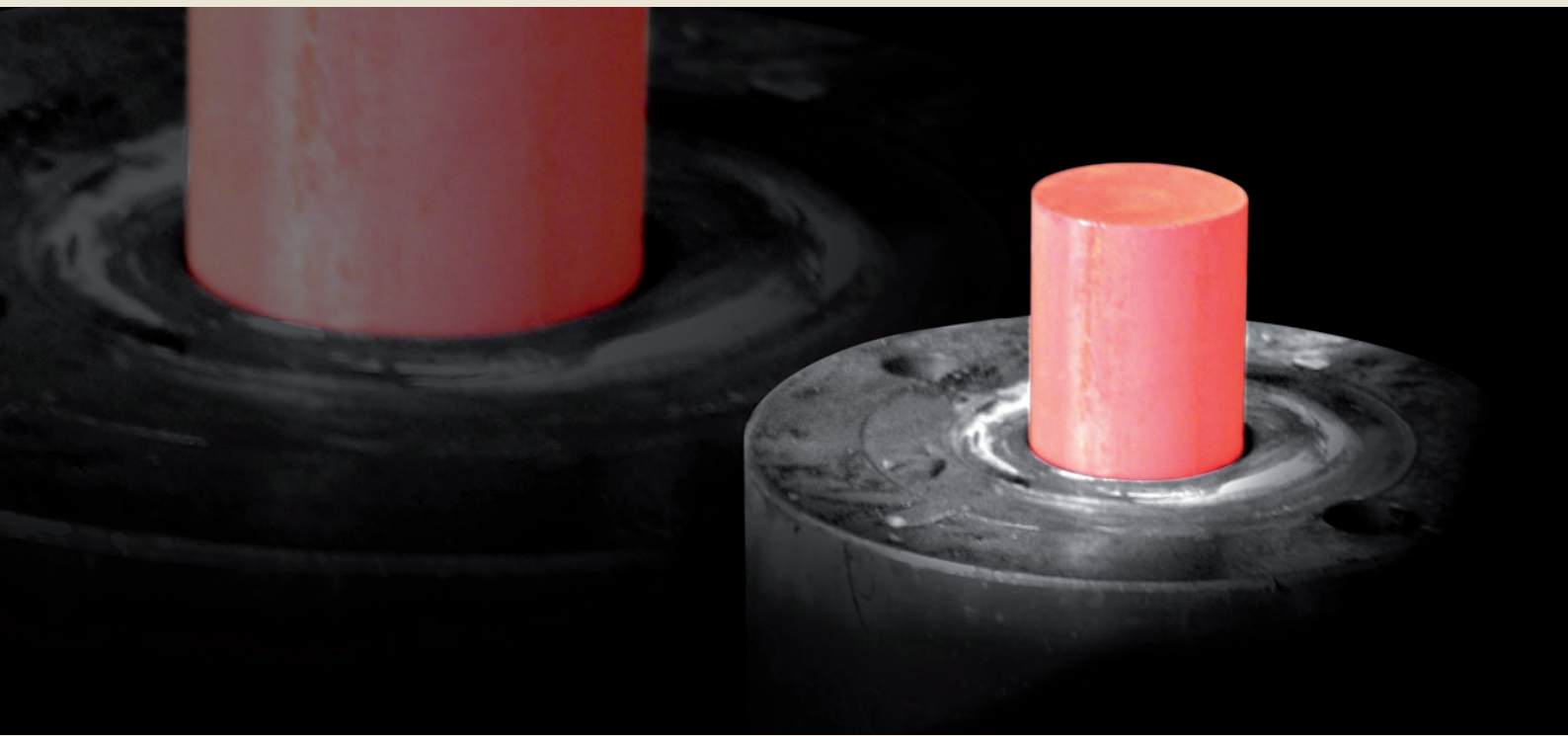


Wieland

Wieland PSR
Precision Stamping Rod
for Optimum Stamping Results





*Uniform, dark surface
of the Wieland PSR*

PSR – Best Ingredients for Optimum Results

Good stamping results can only be achieved if all links in the process chain are perfectly coordinated. With the **Wieland PSR** we have developed a hot-stamping rod which fully meets this requirement. The special chemical composition within the standard and close tolerances over the entire range of dimensions:

- lead to consistent processing properties
- allow a low stamping temperature
- result in an optimum filling of the moulds
- ensure smooth operation and low tool wear
- help to exactly determine the billet weight

The **Wieland PSR** therefore makes it possible to achieve optimum results in the manufacture of your stamped parts.

The **Wieland PSR** is made to order and available in two different alloys:

- Standard hot-stamping brass CuZn40Pb2 – Wieland-Z48
- Dezincification-resistant hot-stamping brass CuZn36Pb2As – Wieland-Z46

The properties of Z48 and Z46 are based on EN 12165. Both alloys fully meet the requirements of the drinking water standard DIN 50930-6.

Decisive quality features of the **Wieland PSR** over the entire diameter range of 10 – 80 mm:

- optimised chemical composition specially developed for hot stamping
- uniform, dark surface for an effective and uniform heating of the billets
- all rods in the drawn condition have close diameter tolerances making a constant and exact setting of the billet weight possible.
- restricted length- and straightness tolerances together with a rectangular, almost burr-free cut ensure an optimum output when the billets are being cut to length.
- on request, eddy-current tested according to DKI Data Test Sheet 791

Technical service

Our Technical Marketing experts are available to discuss any aspect of your production from the planning stage. Their know-how and expertise allow them to provide you with detailed information about product properties, further processing and delivery options. Benefit from the services of a manufacturer who not only offers rods but also technical know-how as well as solutions to problems.

Quality and environment

We have a certified quality management system in place since 1987. Continuous development has always been our aim. Today we are certified according to DIN EN ISO 9001-2008. Environmental regulations and demands are also stringent. Our production sites are certified in accordance with DIN EN ISO 14001 and also according to the EU regulation EMAS II.



*The Wieland PSR is processed into
products for the sanitary industry.*

Material

Material designation				Composition in % (nom.)			
Wieland	EN		UNS	Cu	Zn	Pb	As
Z48*	CuZn40Pb2	CW617N	C38000	58	balance	max 2.2*	–
Z46**	CuZn36Pb2AS	CW602N	C35550	62	balance	max 2.2*	0.1

* according to DIN 50930-6

** Dezincification resistance is achieved through a β -phase-free micro-structure. Therefore, a 550 °C/4h heat treatment of the parts is recommended after stamping.

For special applications there are additional materials available, e.g.

- **Wieland-Z33** – for the complex machining of stamped parts
- **Wieland-ECOBASS®** – special lead-free, high-strength brass with excellent machining properties
- **Wieland-Z29** – for stamped parts which have to be cold formed
- **Wieland-S40** – a special brass with high mechanical strength
- **Wieland-N31** – a nickel-silver alloy with good stamping properties

Mechanical properties

The **Wieland PSR** is supplied in the drawn condition “M” (as manufactured) without defined mechanical parameters.

Geometric properties

Dimensions and tolerances				
Diameter (mm)	Tolerances* (mm)	Lengths** (mm)	Straightness	Note
10–18	±0.14	3000 ± 30	1/3 of what is specified acc. to DIN EN 12165 = 1 mm/m	drawn
>18–30	±0.17			
>30–50	±0.20			
>50–80	±0.37			

* corresponds to the closest tolerance class B according to DIN EN 12165

** on request, possible over the entire range of dimensions up to 5,000 mm



Processing information

Stamping temperatures

The following temperatures are recommended for the material

Wieland-Z48	650–750 °C
Wieland-Z46	750–850 °C

For an exact temperature control it is important that the emission coefficient for pyrometer measurement is correctly adjusted. Tests carried out on the PSR have revealed a relatively constant emissivity of 0.69 / ±0.02 in the temperature range of 650–850 °C. However, pyrometers may vary from type to type. This value is consequently given for reference only.

End finish

Both rod ends are cut perpendicularly to the axis with a minimum of burr. All rods are marked with **W** on one side.

Packaging

The rods are preferably supplied in bundles of approx. 1,000 kg. Smaller bundles of approx. 500 kg are possible. The bundles are steel strapped several times over corrugated board.

Wieland-Werke AG

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