

wieland

Precision brass rod

W5000



W
5000

W5000 Round Rod

W5000 the brass rod for highest demands

The W5000 rod is our premium product for your high-precision machining. Due to the diameter tolerance h8 which is further reduced within a bundle, our size range 1.5 to 10 mm is particularly suitable for machining on automatic long-turning lathes running at high speeds. These sizes are available with a uniformly smooth surface drawn with diamond tools for the highest demands.

Our rods in sizes over 10 to 50 mm have been specially optimized for machining on multi-spindle automatic lathes. For diameters up to 30 mm we supply these rods with a tolerance h8. The end finish that is suitable for automated processing enables smooth feeding and unmanned operation.

Our rods in sizes over 50 to 80 mm are supplied in drawn temper and ensure a trouble-free machining because of their high precision and constant properties.

Technical delivery conditions

- End finish suitable for automatic feeding
- Bright drawn surfaces
- All rods are eddy current tested
- Manufacturer's mark on rod face with diameter > 7mm

Nominal Ø	Camfer length	Point length
mm	mm	mm
< 5	0.2–1.0	1.5–4
6–10	0.2–1.5	2–7
11–20	0.2–2.0	3–10
21–30	0.2–3	4–12
31–39	0.2–4	7.5–11
40–42	0.2–4	10–12
43–70	0.2–4	second end sawn
71–80	both ends sawn	both ends sawn

Geometry

- Inspected geometry for each rod. Our rods up to 80 mm usually have a much better straightness than 0,5 mm/m.
- Cut lengths, no deviation within a batch
- Reduced diameter variation within a batch
- Minimal out-of-roundness
- High uniformity of diameters within a rod/bundle/ packaging unit. Reduced tolerances for sizes 4 to 10 mm, within a bundle the diameter tolerance h8 is reduced to 5 µm and the out-of-roundness is restricted to 0.05 % of the diameter

Nominal Ø	ISO-tolerance	Out-of-roundness
mm	mm	mm
2	-0.014	max. 0.002
3		
4		
5	-0.018	max. 0.0025
6		max. 0.003
7	∞	max. 0.0035
8		max. 0.004
9		max. 0.0045
10		max. 0.005

Quality features that speak for themselves

Wieland-Z33 and Wieland-Z41

- Consistant properties due to close alloy tolerances
- Good machinability due to fine and homogeneous lead distribution
- Long life due to low contamination level and optimized phase distribution
- Our material Wieland-Z41 is approved for use in drinking water in Europe

Material destination			Chemical composition %		
Wieland	EN	UNS	Cu	Zn	Pb
Z33	CuZn39Pb3 CW614N	C38500	58	balance	3
Z41	CuZn40Pb2 CW617N	C38000	58	balance	2

Packaging

Size range 2 to 5 mm

The rods are tied with cord in small bundles of approx. 25 kg and packed in a wooden box lined with recyclable PE foil. Net weight approx. 250 kg.

Size range > 5.5 to 9.5 mm

Small bundles of approx. 25 kg up to 7.5 mm. Loose packaging for larger sizes. The rods are packed in a wooden box lined with recyclable PE foil. Net weight approx. 500 kg.

Size range > 10 mm

The rods are supplied preferably in bundles of approx. 500 kg. Alternatively, they are available in bundles of up to 1,000 kg. The bundles are steel strapped several times over corrugated cardboard and in order to prevent them from sliding one bundle end is wrapped in jute sacking. These specifications apply to our standard packaging. Special packaging is available on request.

Mechanical Properties

We guarantee constant mechanical strength properties through tight tolerances for reliable finished products.

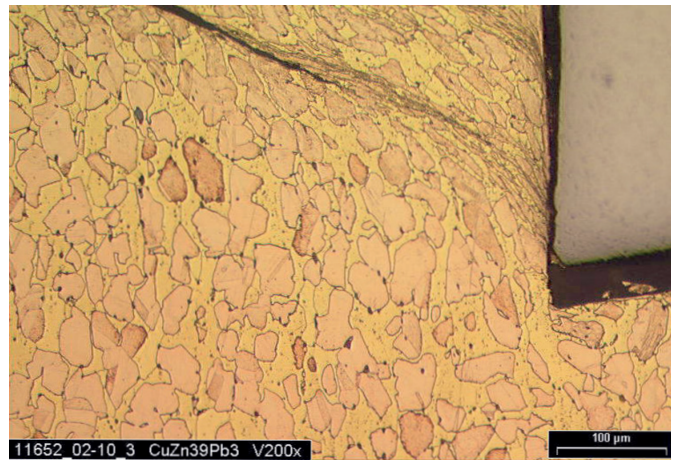
Size range	EN-Temper	R _m	R _{p0.2}	Elongation
		MPa	MPa	%
2-<4	R500	min. 500	min. 350	A 100
4-8	R500	min. 500	min. 350	A 11.3 min. 3
> 8-14	R500	min. 500	min. 350	A min. 5
14-60	R430	min. 430	min. 220	A min. 10
60-80	R360	min. 360	min. 350	Amin. 20

Lead distribution

The formation of needle chips is essentially determined by a balanced ratio between alpha and beta phases with homogeneous lead distribution. Lead results in short chips, low tool wear and cutting forces.

Work efficiently and cost-effectively thanks to our consistent quality

A calculation that pays off. Make use of the advantages of our consistently high quality for a stable manufacturing process!



	Number of revolutions	Machinig time/ component	Mach. hourly rate	Mach. costs/ component	Yield	Costs/1.250 components	Saving with W5000
	1/min	sec	€	€	components/h	€	
Wieland W5000* Tolerance ISO h8	5,000	17	51	0.24	212	302	201€/100kg
normal round rod Tolerance according to EN	3,000	28	51	0.40	127	503	

*example refers to diameter of 22 mm

For further sizes and types please refer to our stock list.

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