# Technical data sheet





# JG 4928-1C 1 component jewelry adhesive

- Liquid characteristics (within shelf life)
  Reaction (within shelf life)
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  Product properties (fully cured)
  Shear
- Advantages

Viscosity measured with Rheometer RS6000 Shear rate: 10 1/s Measuring temperature: 23°C Tensile strength measured with Zwick Roell Z020 v = 5 mm/min Bond area: 63,6 mm<sup>2</sup>

1.	Chemical basis	1C epoxy adhesive
2.	Colour	Transparent
3.	Viscosity at 23°C	18.000 ± 5.000 mPa*s
4.	Viscosity at 30°C	10.000 ± 2.000 mPa*s
5.	Storage stability at ≤ 6°C	6 months
6.	Storage stability at 23°C	5 days
7.	Storage stability at 30°C	10 hours
8.	Surface tension at 23°C	31 mN/m
9.	Hardening time at 80°C	≥ 1 h
10.	Hardening temperature	≥ 80°C
11.	Very stable in position during hardening (semi thixotropic); this means no sagging - even at 90°C	I: diameter of the glue drop $I_{\alpha=0^{\circ}C} = I_{\alpha=90^{\circ}C}$
12.	Low starting temperature for curing	> 70°C
13.	Gelling at 80°C (glue temperature)	3 – 6 min (depending on the mass of the stone and metal part)

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- **14.** No toxic and no bad smelling gases in case of unexpected hardening at high temperature in the oven or during the transport. This is a big advantage in comparison to standard 1 component epoxy systems
- **15.** Interruptions during the hardening cause no change in the final properties. The glue can still be cured completely after an interruption.

16.	Glass-point (TG) by DSC	85 <u>+</u> 5°C
17.	Shore D at 23°C	75 – 80
18.	Elongation at break at 23°C	15 %
19.	E-modulus at 23°C	790 N/mm <sup>2</sup>
20.	Resistance against perfume (Original Swarovski test)	Very good (uptake ≤ 0,5% after 5 days at 55°C)
21.	Resistance against cream	Very good (uptake ≤ 0,05% after 5 days at 55°C)

(Vaseline – Unilever)

### 22. Tensile strength

Material	Condition	Value [N/mm <sup>2</sup> ]
Rhodium and brass	23°C	≥ 20
	After climate test (DIN 58390-12-120)	≥ 20
	After perfume test (5 days at 55°C immersion)	≥ 17
	After cream test (5 days at 55°C in Vaseline – Unilever)	≥ 17

Very good

UV resistance regarding WN 0011

23.

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### 24. Special features of 1C epoxy JG 4928

- 1. Viscosity is individually adjustable for customer demands
- 2. Absolutely transparent
- 3. Minimum curing temperature of 80°C
- 4. Contains only non-toxic materials
- 5. Good shock absorbance
- 6. Very good chemical resistance
- 7. No toxic and no bad smelling gases in case of unexpected hardening (makes transport safer in case of an emergency)
- **8.** Interruptions during the hardening cause no change in the final properties; the glue can still be cured to 100% after an interruption

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#### Please notice

The mentioned data and information are based on tests in our laboratory. Reliable statements about the behaviour of the glue in practical use and the suitability for a specific use cannot be taken. The suitability of the product for a provided use by consideration of all necessary conditions must be tested by the user itself. The kind, the physical and chemical properties of the used materials and the influences during the transport, storage and usage of the glue can effect deviations in the behaviour of the glue in comparison to the behaviour in our laboratory. The mentioned data are measured in our laboratory and they are typical average values or values which are measured only one time. The mentioned data and information represent consequently no guarantee / assurance of the parameters or the suitability of the glue for a specific use. For safety information have a look at the safety data sheet (SDS).