

COPSIL GEL 40

COPSIL GEL 40 is a silicone gel which is a dry, translucent, compact, very soft and resistant material of 40 Shore 00 hardness. It is classified as «fast return» silicone gel regarding its viscoelasticity. It can be used in contact with the skin as it complies with the ISO 10993-5 standard.

COPSIL GEL 40 is made of a two-component system (resin & hardener) to be mixed in equal parts. It crosslinks at room temperature by polyaddition reaction thanks to a platinum complex based catalyst. The polymerization can be accelerated by heat.

Easy to use thanks to a satisfying fluidity and its simple mix ratio, it is aimed to the manufacture of low hardness parts (40 Shore 00).

Mixing of the components

The weighing of the components must be done in the same container, one after another. The mixing ratio must be respected as precisely as possible.

This system can be implemented either manually, or with a mechanical mixer at low speed (less than 300 rpm) to avoid the incorporation of air bubbles. It is then advised to degas the mix thanks to a vacuum pump.

A two-component casting machine can be used in accordance with the ratio mix.

Casting and reactivity

The crosslinking reaction for polyaddition silicones catalyzed with platinum complex can be inhibited by contact with certain materials, i.e. products with natural rubber vulcanized with Sulphur (DO NOT use latex gloves, only vinyl gloves), from chlorine, from certain synthetic rubbers, from certain polycondensation silicones catalyzed with tin salts, from certain plasticizers, from amines used as hardener in epoxy resins, plastiline, etc...

This list is not exhaustive, and we always advise a trial run.

The mechanical characteristics of the COPSIL GEL 40 are stable after 48 hours. This time can be considerably reduced by placing the mold in an oven. The temperature not to be exceeded is 135°C.

TIME	COPSIL GEL 40
Working time at 20°C	8 min



Characteristics of the polymerized product

Hardness Shore 00 : approx. 40

Non-Sticky and nervous gel

Characteristics of the liquid product

Aspect:

Transparent, lightly translucent for both the resin and the hardener.

Density:

Approx. 1 for the two components.

Viscosity:

at 20°C in mPa.s

- Approx. 2 500 for the resin
- Approx. 2 500 for the hardener

Mixing ratio in weight:

Resin	100 parts
Hardener	100 parts

Demoulding time at 20°C	50 min
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Packaging

The COPSIL GEL-40 is available in 500 g pots, as well as in 5 kg and 25 kg buckets and in 2x200 mL cartridges. Here are their references:

PACKAGING	REFERENCE
500 g	GES-40 R01 resin and GES-40 D01 hardener
5 kg	GES-40 R05 resin and GES-40 D05 hardener
25 kg	GES-40 R25 resin and GES-40 D25 hardener
2x200 mL	GES-40 C400

Storage, handling and safety

In its original packaging, the silicone elastomer COPSIL GEL-40 is guaranteed 12 months if both components are stored away from light, humidity, well closed and at a room temperature below 30°C.

Rather use these products as soon as they are open. Usual health and safety conditions must be applied during the handling of the COPSIL GEL-40. To do so, please read carefully our H&S Data Sheet, as well as the information given on the product's label.

Information contained in this document is supplied in good faith and based on our current knowledge. It is for indication and not formal constraint, in particular if this product is not used according to the applications expressed in this technical index card. A preliminary test will always be advised to be sure that the product corresponds to the customer's requirements.

The user of this product undertakes to respect the current legislation for the elimination of waste.

Customs' code

COPSIL GEL-40 resin & hardener	39100000
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