

COPSIL 20

Fluid translucent silicone, resistant, easy to demold for mold making or prototyping.

COPSIL 20 is a very fluid silicone elastomer with excellent mechanical properties.

It consists of a two-component system - resin and hardener - mixing in equal parts and cross-linking at room temperature by polyaddition reaction with a platinum complex catalyst.

Easy to use thanks to an extreme fluidity and a simple mixing ratio, this product is intended for the manufacture of low hardness parts (20 Shore A).

Process: casting, spraying, filling with COP gelling agent

Mixing of components

The weighing of the two components must be done in the same container, one after the other, respecting most precisely the mixing ratio.

The mixing will be done either manually or with a mechanical mixer running at low speed (less than 300 rpm) to avoid the incorporation of air bubbles.

A two-component casting machine such as Silijet can of course also be used respecting the mixing ratio.

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 20 are stable after 24 hours. It can be considerably reduced by placing the mold in an oven. The temperature not to be exceeded is 135 °C.



Characteristics of the polymerized product

Hardness Shore A: approx. 20

Maximum elongation in %:

- on unnotched rings: approx. 900
- on notched rings: approx. 550

Maximum resistance in N/mm²:

- on unnotched rings: approx. 3,5
- on notched rings: approx. 1,7

Characteristics of the liquid product

Aspect:

Transparent, slightly translucent for both the resin and the hardener

Density:

Approx. 1 for the two components.

Viscosity at 20 °C in mPa.s:

- Approx. 6 500 resin
- Approx. 5 000 hardener

Mixing ratio in weight:

| | |
|----------|-----------|
| Resin | 100 parts |
| Hardener | 100 parts |

The COPSIL 20 is available in two reactivities depending on the intended application:

| TIME | FAST | NORMAL |
|-------------------------|--------|--------|
| Working time at 20 °C | 25 min | 40 min |
| Demolding time at 20 °C | 2h | 4h |

Packaging

COPSIL 20 is available in 500 g bottle, and in 5 kg or 25 kg buckets under the following references:

| PACKAGING | | REFERENCE |
|-----------|--------|--|
| 500 g | Fast | T-20TR R01 resin and T-20TR D01 hardener |
| | Normal | T-20TN R01 resin and T-20TN D01 hardener |
| 5 kg | Fast | T-20TR R05 resin and T-20TR D05 hardener |
| | Normal | T-20TN R05 resin and T-20TN D05 hardener |
| 25 kg | Fast | T-20TR R25 resin and T-20TR D25 hardener |
| | Normal | T-20TN R25 resin and T-20TN D25 hardener |
| 2x200 mL | Fast | T-20TR C400 |

Storage, handling and safety

In its original packaging, the silicone elastomer COPSIL 20 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 20. 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 20 resin & hardener

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