

ZC 20 BASE: Technical Data Sheet

RTV 2 SILICONE RUBBER / INDUSTRIAL USE

1. Description and Main Features

- Pourable RTV 2 condensation curing, two component silicone that vulcanize at room temperature.

1.1 Special feature

- Medium Shore A hardness (approx. 20)
 - High tear strength
 - Low dimensional variation
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2. Application

Industrial (low dimensional variation, high mechanical resistance, long life of the mould.)

3. INSTRUCTIONS FOR USE

Take the two components supplied by Zhermack (BASE and CURING AGENT) and shake before use in order to homogenize each component prior to mixing. The BASE component is white, whereas the CURING AGENT component is transparent/ yellowish.

Please keep in mind that the exact proportions should be 100:5 (5 units of curing agent for every 100 units of base). For example, given 1Kg of base, you must add 50g of curing agent. This ratio must be respected in order to ensure the final characteristics of the product. DO NOT exceed the recommended ratio for the curing agent. It is possible to use LESS curing agent (3-4%) than the recommended ratio (5%), however keep in mind that although dimensional variation will be lower, setting time will increase.

Hardness is reached after a certain number of hours (see table) and if the correct% of catalyst is respected. After 24 h the product is polymerized. After 72 hours, perfectly hardened. Attention: the condensation bases naturally accelerate near the expiry date; therefore, it is recommended to use, in this case, less catalyst so that the product purchases in flexibility and withdrawal.

It is also recommended to homogenize the base individually and also the curing agent for possible sedimentation before use.

Mix energetically until the blended white color is homogeneous. Once the product is thoroughly mixed, it is ready to be casted and we recommend pouring the silicone from a 30 cm height into the mould.

Complete hardening requires about 72 hours after mixing the two components. However, the product can be demolded in as little as 18-24 hours.

The reported WT shown in the table refers to a standard temperature of 23°C. The setting time ST is the time it takes for the silicone to harden from the beginning of mixing of the two components. The reported ST shown in the table refers to a standard temperature of 23°C. After the ST is complete, the model can be separated from the mould. If necessary, use compressed air to facilitate this separation. Do not use any tools to force the separation of the model from the mould.

Effects of temperature on setting and working times: The working time and setting time are reduced if the temperature exceeds 23°C (e.g. if the temperature is 40°C, the working time and setting time are approximately cut in half). If the temperature is less than 23°C, the working time and setting time increase considerably.

Cured silicone properties are guaranteed within temperatures ranging from a minimum temperature of - 40 °C to a maximum temperature of +200°C.

5. Chemical and Physical Properties

ZC 20 BASE		ZC P CURING AGENT
Proprietà		Working time (@ 23°C) <90 min. (*)
Material	Viscous liquid	Hardness after 24h 17 ShA
		Hardness after 72h 20 ShA
Viscosity BASE	40000 cP	Tear strength (Die B) 20 N/mm
Density Base	1.22 g/cc	Tensile Strength 3 N/mm ²
Mixing ratio B + C	100 + 5	Elongation at break 450%
Dimensional Variation		Dimensional variation 48 h 0,51 %
Dimensional Variation		Dimensional variation 7 gg 0,6 %

These figures are only intended as a guide and should not be used in preparing specifications.

6. Available Packages

DT00171	ZC 20 BASE 1 KG
DT00170	ZC 20 BASE 5KG
DT00172	ZC 20 BASE 20 KG
DT00173	ZC 20 BASE 200 KG
Curing agent CEE	
DT00120	ZC P CURING AGENT 50 G
DT00121	ZC P CURING AGENT 250 G
DT00122	ZC P CURING AGENT 1KG
DT00123	ZC P CURING AGENT 2X5KG
DT00673	THIXO AGENT FOR CONDENSATION 250g (2/4%)

7. Safety Data Sheets

Before handling the product, read the safety data sheet and make sure to get all the information required for safe use.

8. Shelf Life

The “Best use before end” date of each batch is shown on the product label.

The ZC 20 Base is guarantee for a period of 12 months if stored correctly at a temperature of between 5° - 27°C (41° - 80°F).

Storage beyond the date specified on the label does not necessary mean that the product is no longer usable. In this case, however, the properties required for the intended use must be checked for quality assurance reasons.
