

ZC 30-120: Technical Data Sheet

RTV 2 SILICONE RUBBER / INDUSTRIAL USE

1. Description and Main Features

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

1.1 Special feature

- Low Viscosity
 - High mechanical resistance
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2. Application

Mould making (low viscosity, high mechanical resistance.)

Restorative (low viscosity, high mechanical resistance.)

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.

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

Typical General characteristics	Value	Inspection Method
PRODUCT DATA (UNCURED)		
COMPONENT Base		
Color	White	
Density of the Catalyst component (Metric System)	1,20 g/cc	
Density of the Catalyst component (USA System)	74,92 lb/ft ³	
Viscosity the Base component	30000 cP	BROOKFIELD
PRODUCT DATA (CATALYZED Curing agent + Base)		
Color	White	
Mixing Ratio	100:5	
Density of the B+C (Metric System) at 23 °C (73 °F)	-	-
Density of the B+C (USA System) at 23 °C (73 °F)	-	-
Working time / Pot life at 23 °C (73 °F)	90'	BROOKFIELD
Setting time at 23 °C (73 °F)	24 h	
Shore A hardness after 24 hours	29 shA	ASTM D2240-05 – 23°C
Tensile Strength (Metric System)	3.5 N/mm ²	ASTM D412-06a – 23°C
Tensile Strength (USA System)	510 psi	ASTM D412-06a – 23°C
Elongation at break	280%	ASTM D412-06a – 23°C
Tear strength Die B (Metric System)	18 N/mm	ASTM D624-00 – 23°C
Tear Die B (USA System)	102 ppi	ASTM D624-00 – 23°C

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

6. Available Packages

DT00665	ZC 30-120 BASE 1 KG
DT00666	ZC 30-120 BASE 5 KG
DT00667	ZC 30-120 BASE 20KG
DT00668	ZC 30-120 BASE 200 KG
Curing agent CEE	
DT00670	ZC 120 CURING AGENT 50 G
DT00671	ZC 120 CURING AGENT 250 G
DT00672	ZC 120 CURING AGENT 1KG
DT00675	ZC 120 CURING AGENT 10 G
Curing agent Extra Cee	
DT00678	ZC 120 CURING AGENT NON –FLAMMABLE 50 G
DT00677	ZC 120 CURING AGENT NON –FLAMMABLE 250 G

DT00676	ZC 120 CURING AGENT NON –FLAMMABLE 1KG
DT00679	ZC 120 CURING AGENT NON –FLAMMABLE 10 G
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 30-120 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.
