

SILISIL RTV PC-Putty 30 BASE

Technical Data Sheet

1. DESCRIPTION

SILISIL RTV PC-Putty 30 BASE is a poly-condensation curing two component silicone that vulcanizes at room temperature. It presents the following special features:

- Very easy to mix
 - Good elasticity during demolding
 - Good mechanical properties
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2. MAIN AREAS OF APPLICATION

- Precise reproduction of vertical surfaces such as statues, frames, works of art, religious objects, wood decorations, and artistic ceramics.
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3. MIXTURE AND APPLICATION

Surface preparation

The surfaces to be reproduced must be clean, dry, and dust-free. Ideally, work at room temperature (approx. 23°C) to ensure consistent processing and curing times.

When using SILISIL RTV PC-Putty 30 Slow CATALYST

1. **Preparation:** Shake or stir both components (base and catalyst) well before use to ensure a homogeneous consistency.
 2. **Mixing:** Weigh the base and catalyst precisely in a **1:0.04** ratio. Mix the components thoroughly, carefully incorporating the mixture into the container walls and bottom.
 3. **Processing:** Apply the mixed putty by hand, filling all parts and details of the object to duplicate.
 4. **Curing:** Vulcanization takes place at room temperature (23°C). The working time of the product is around 1h30', demolding is possible after 8 hours. The complete mechanical properties and hardness will be reached after 24 hours from the mixing. If the user needs to bond a new layer of putty on an old one after 24 hours from the hardening, please see "Adhesion between layer".
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When using SILISIL RTV PC-Putty 30 Fast CATALYST

1. **Preparation:** Shake or stir both components (base and catalyst) well before use to ensure a homogeneous consistency.
2. **Mixing:** Weigh the base and catalyst precisely **in a 1:0.02** ratio. Mix the components thoroughly, carefully incorporating the mixture into the container walls and bottom.
3. **Processing:** Apply the mixed putty by hand, filling all parts and details of the object to duplicate.
4. **Curing:** Vulcanization takes place at room temperature (23°C). The working time of the product is 2 minutes, demolding is possible after 15 minutes. The complete mechanical properties and hardness will be reached after 24 hours from the mixing. If the user needs to bond a new layer of putty on an old one after 24 hours from the hardening, please see "Adhesion between layer".

Adhesion between layers

- First layer of silicone + new putty (slow catalyst): adhesion between the two layers within 24 hours from the hardening of the first layer. After 24 hours of the hardening of the first layer, adhesion is no longer possible.
- First layer of silicone + new putty (fast catalyst): adhesion with the second layer in 15 minutes. With a higher percentage of the fast catalyst, adhesion between the two layers is no longer possible.

4. IMPORTANT RECOMMENDATIONS

- Before handling the product, read the safety data sheet and make sure to get all the information required for safe use.
- Test the product in small scale quantity before extending the use in larger scale.
- The use of vinyl gloves is suggested.
- The use of PVA (polyvinyl alcohol) demolding agent is suggested.
- Wet hands are not necessary to use the product.
- It is recommended to use vacuum to eliminate any air bubbles.
- The working time WT (see table below), also known as "pot life", is the recommended time for mixing/vacuuming prior to casting.
- 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.
- Close the bottles after use, do not change the caps or lids between the base and catalyst.

5. TECHNICAL DATA

Base + SILISIL RTV PC-Putty 30 Slow CATALYST (cured components)

Properties	Specifications	Analytical Method
Color	Light Yellow	Visual
Aspect	Putty	Visual
Density (23 °C)	0,95 g/cc	
Working time/Pot life (23 °C)	90'	Internal Method (Brookfield)
Setting time (23 °C)	18h - 22h	
Shore A hardness (after 24 hours, 23 °C)	30 shA	ASTM D2240
Fully vulcanized (23 °C)	24 hours	
Tensile Strength (23 °C)	0,9 N/mm ²	ASTM D412
Elongation at break (23 °C)	200 %	ASTM D412
Tear strength Die B (23 °C)	3,6 N/mm ²	ASTM D624
Tear strength Die C (23 °C)	3,3 N/mm ²	ASTM D624
Dimensional Variation (after 5 days, 23 °C)	< 0,57 %	

Base + SILISIL RTV PC-Putty 30 Fast CATALYST (cured components)

Properties	Specifications	Analytical Method
Color	Light Red	Visual
Aspect	Putty	Visual
Density (23 °C)	1,37 g/cc	
Working time/Pot life (23 °C)	2'	Internal Method (Brookfield)
Setting time (23 °C)	15'	
Shore A hardness (after 24 hours, 23 °C)	28 shA	ASTM D2240
Fully vulcanized (23 °C)	24 hours	
Tensile Strength (23 °C)	1,2 N/mm ²	ASTM D412
Elongation at break (23 °C)	177 %	ASTM D412
Tear strength Die B (23 °C)	4,7 N/mm ²	ASTM D624
Tear strength Die C (23 °C)	3,9 N/mm ²	ASTM D624
Dimensional Variation (after 5 days, 23 °C)	< 0,57 %	

6. PACKAGING

SILISIL RTV PC-Putty 30 BASE is available as standard in 1kg, 5kg and 25kg containers. Other container sizes are available upon request

7. SAFETY INSTRUCTIONS

Before handling the product, read the safety data sheet and ensure that you have all the information required for safe use.

8. IMPORTANT NOTE

This document contains information provided to the best of our knowledge and belief, based on the current state of our understanding. This information is for guidance only and does not constitute any obligation on our part, particularly in the event of an infringement of third-party rights through the use of our products. This information should be supplemented by preliminary testing to ensure the product's suitability for its intended purpose.
