

# CAF 3

<b>Description</b>	<p><b>CAF 3</b> is a one component, flowing silicone elastomer which cures at room temperature on contact with atmospheric humidity.</p> <p>The product is :</p> <ul style="list-style-type: none"> <li>• Acetic,</li> <li>• Flowing,</li> <li>• Translucent.</li> </ul>
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<b>Examples of applications</b>	<p><b>CAF 3</b> is mainly used in industrial sealing and bonding applications when requiring a flowing product.</p> <p><b>CAF 3</b> is notably used for:</p> <ul style="list-style-type: none"> <li>• Potting and insulation of electronic sensors,</li> <li>• Bonding of various materials,</li> <li>• General maintenance in industry.</li> </ul>
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<b>Key benefits</b>	<p><b>CAF 3</b> is quick curing, has very good mechanical properties and good high temperature resistance.</p> <p><b>CAF 3</b> therefore provides perfect assembly and complete sealing between different materials subject to thermal stresses.</p> <p><b>CAF 3</b> also has good resistance to chemical agents.</p>
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<b>Typical properties</b>	<p><b>1. <u>Properties before curing</u></b></p>
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<i>Properties</i>	<b>CAF 3</b>
Appearance	Flowing paste
Color	Translucent
Cure type	Acetic
Specific gravity at 23°C, approx. (Standards ISO R 1183, DIN 53479)	1.01
Flowability (Standards MIL S 880 2 D, minutes)	2 to 12
Brookfield viscosity, approx. (Standards NFT 76105)	140 000

<b>2. <u>Curing</u></b>	<p><b>CAF 3</b> starts curing as soon as the products come into contact with atmospheric moisture.</p>
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Skin formation time*, minutes, approx.	8
Time required to cure 2 mm*, hours, approx.	5
Cured thickness after 24h*, mm, approx.	4.5

\*Temperature 23°C, relative humidity 50%  
 The curing rate increases with temperature and hygrometry.

**3. Properties after curing**

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Specific gravity at 23°C, approx. (Standards ISO R 2781, BS 903 Part A1 - ASTM D 297)	1.03
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### 3.1 Mechanical properties after 7 days at room temperature (Measured on a 2 mm thick film)

Properties	CAF 3
<b>Shore A hardness</b> (Standards ISO R 868-DIN 53505-ASTM D 2240, BS 903 Part A7, NFT 46003)	26
<b>Modulus at 100% elongation, MPa</b> (Standards ISO R 37 (H2), DIN 53504, ASTM D 412, BS 903 Part A2, NF T 46002 (H2))	0.5
<b>Tensile strength, MPa</b> (Standards ISO R 37 (H2), DIN 53504, ASTM D 412, BS 903 Part A2, NF T 46002 (H2))	1.3
<b>Elongation at break, %</b> (Standards ISO R 37 (H2), DIN 53504, ASTM D 412, BS 903 Part A2, NF T 46002 (H2))	260
<b>Tear strength, kN/m</b> (Standards ASTM D 624 specimens A)	2.5

### 4. Thermal properties

Properties	CAF 3
Lower usage temperature limit, Brittle point, °C	- 60
Temperature range in continuous use, °C (on 2 mm thickness film, 1000 h)	+ 200
Maximum recommended peak temperature, °C (on 2 mm thickness film, 72 h)	+ 225

N.B. These values are not absolute limits, but the range within which variations in mechanical properties are not reduced by more than 50%.

In the case of exposure for periods shorter than 72 h, the product withstands higher peak temperatures.

### 5. Thermal conductivity

Thermal conductivity at 30°C, W/m.K, approx. (Standard NF X 10021)	0.2
Thermal conductivity at 150°C, W/m.K, approx. (Standard NF X 10021)	0.15

### 6. Adhesion properties

(1 mm thick joint, curing 7 days at 23°C)

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<i>Properties</i>	<b>CAF 3</b>
Shear strength <b>on glass</b> , MPa, approx.	0.6
Shear strength <b>on aluminium AG3</b> , MPa, approx.	0.5
Type of failure	100% cohesive

## On other surfaces

Enamel, ceramics, epoxy	Primerless self-adhesion
Certain plastics	Primers PM 820 or PM 824
Metals	Primer 131

## **7. Dielectric properties**

<i>Properties</i>	<b>CAF 3</b>
<b>Dielectric strength, kV/mm , approx.</b> <i>(Standards NF C 26225 - ASTM D 419, IEC 243)</i>	19
<b>Dielectric constant at 1 MHz, approx.</b> <i>(Standards NF C 26230 - ASTM D 150, IEC 250)</i>	2.7
<b>Power factor at 1 MHz, approx.</b> <i>(Standards NF C 26230 - ASTM D 150, IEC 250)</i>	2.10 <sup>-3</sup>
<b>Volume resistivity, Ω.cm, approx.</b> <i>(Standards AFNOR NF C 26215 - ASTM D 257, CEI 93)</i>	1.10 <sup>15</sup>

Please note: The typical properties are not intended for use in preparing specifications. Please contact our local Sales Department for assistance in writing specifications.

<b>Instruction of use</b>	<p>Processing is particularly easy, since the products are delivered ready to use. Application can be carried out either manually or using robotic application equipment.</p> <p><b>CAF 3</b> is applied to one of the two joint surfaces and assembled before the product has formed a skin.</p> <p>It is recommended to apply <b>CAF 3</b> to clean and dry surfaces.</p>
<b>Regulation</b>	Please consult your local ELKEM SILICONES sales office.
<b>Limitations</b>	Please consult your local ELKEM SILICONES sales office.
<b>Packaging</b>	<ul style="list-style-type: none"> <li>• CAF 3 is available in                             <ul style="list-style-type: none"> <li>○ Drum of 210 KG (463.05 LB)</li> <li>○ Piece of 0.1 KG (0.22 LB)</li> </ul> </li> </ul>
<b>Storage and shelf life</b>	<p>When stored in its original packaging:</p> <p>CAF 3 may be stored at temperatures between 2°C / 36°F and 30°C / 86°F for up to 30 months from its date of manufacturing.</p>

## CAF 3

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Comply with the storage instructions and expiration date marked on the packaging. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.

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<b>Safety</b>	Please consult the Safety Data Sheet of: CAF 3
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