# CAF 30

Silicones | Delivering your potential

Technical Data Sheet n° 759-V3 – 2018/08/01

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| **Description** | CAF 30 is a one-component silicone elastomer that cures at room temperature:<br>· ACETIC.<br>· NON-FLOWING<br>· WHITE, BLACK, TRANSLUCENT (standard), RED (on request)<br>· ADHESIVE |
| **Examples of applications** | It is mainly intended for professional customers as a flexible bonding agent to provide sealing, bonding and protection, etc.<br>Its high elongation/break properties allow it to absorb significant differential expansion movement.<br><br>• Bonding/sealing in the industrial sector.<br>• Sealing of side windows on trains.<br>• Sealing of heat sources (ovens, heat exchangers, steam circuits, water heaters).<br>• Bonding of HCR silicones.<br>• General servicing and maintenance applications in various sectors: automotive, aeronautical, railways, chemicals, industry, etc. |
| **Key benefits** | • Choice of colors.<br>• Good heat stability.<br>• Good dielectric properties.<br>• Adhesion to many surfaces.<br>• Resists water and humidity.<br>• Quick curing.<br>• High elongation at break. |
| **Typical properties** | 1. Processing/Curing<br>Processing is particularly easy since the product is delivered ready to use. Application can be carried out manually or using robotize application equipment.<br>The CAF 30 bead is applied onto one of the two joint surfaces. Assembly must be carried out before the product has formed a skin.<br>It is recommended not to exert an immediate strain on the assembly.<br><br><u>Curing</u><br>CAF 30 starts to cure as soon as the product is brought into contact with atmospheric humidity.<br>- Skin formation time*, min.....6<br>- Cure rate of 2 mm thickness*, h .....6<br>- Cured thickness after 24 h*, mm .....4.2<br>*Temperature 23 °C, relative humidity 50 %<br>The cure rate increases with temperature and hygrometry.<br>Comment: it is recommended to apply the product to clean, dry surfaces.<br><br>2. Properties before curing<br>Appearance ..... non-flowing paste |



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Colors: standard..... white, black, translucent
on request ..... . red, grey, blue
Cure type ..... acetic
Flowability, in mm ..... ≤ 2
(Standards BOEING S 7502 - NMRPS 459)
Extrusion, g/min. ..... 40
(Standard NMRPS 495 A, 3 mm / 3 bars)
Specific gravity at 25 °C ..... 1,04
(Standard ISO R 1183, DIN 53479, NMRPS 703)

3. Properties after curing
3.1. Specific gravity at 23 °C ..... 1.05
(Standards ISO 2781, BS 903 Part A1, ASTM D297)

3.2. Mechanical properties after 7 days
Shore A hardness..... 20
(Standards ISO R 868, DIN 53505, ASTM D 2240 BS 903 Part A7, NFT 46003, NMRPS 471)

Modulus at 100 % elongation, MPa ..... 0,6
(Standards ISO R 37 (H2), DIN 53504, ASTM D 412 BS 903 Part A2, NFT 46002 (H2), NMRPS 470)

Tensile strength, MPa ..... 2,2
(Standards ISO R 37 (H2), DIN 53504, ASTM D 412
BS 903 Part A2, NFT 46002 (H2), NMRPS 470)

Elongation at break, % ..... 500
(Standards ISO R 37 (H2), DIN 53504, ASTM D 412
BS 903 Part A2, NFT 46002 (H2), NMRPS 470)

strength, kN/m..... 5,0
(Standards ASTM D 624 specimen A, NMRPS 492)

3.3. Thermal properties or heat stability

| | CAF 30<br>Black | CAF 30<br>Other colors |
|---|---|---|
| Lower temperature limits:<br>Brittle point<br>(Measured using differential calorimetric analysis)<br>Upper temperature limits:<br>Maximum recommended service temperature<br>- continuous | – 60 °C | – 60 °C |

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| (on 2 mm thick film, 1000 h)<br>- peak | + 250 °C | + 250 °C |
| (on 2 mm thick film, 72 h) | + 300 °C | + 250 °C |

N.B.: These thermal values are not absolute limits. They represent the range within which initial mechanical properties are not modified by more than 50 %.
Furthermore, for peak usage, exposure for less than 72 hrs authorizes higher maximum temperatures.

3.4. Adhesion properties
Shear strength on aluminum, MPa .....1.5
(Aluminum G3 specimens, joint 1 mm thick,
Standard NMRPS 748)
Type of failure; cohesive, % .....100
Primerless self-adhesion on:
glass, enamel, ceramics, epoxy paint, polyester, certain metals. Outside of humid heat conditions on metal and polyester.
Adhesion with a primer:
- Stainless steel, aluminium.....primer PM 820
- ABS primer PP 878
- Polymethyl methacrylate .....primer 131
- Composites filled with 30 % glass fiber.....primer PP 878
(polyamide, polyester, polypropylene)

3.5. Dielectric properties
Dielectric strength, kV/mm .....20
(Standards NFC 26225, ASTM D 419, IEC 243)
Dielectric constant at 1 MHz .....3
(Standards NFC 26230, ASTM D 150, IEC 250)
Dielectric dissipation factor at 1 MHz.....$3 \times 10^{-3}$
(Standards NFC 26250, ASTM D 150, IEC 250)
Volume resistivity, W.cm.....$2 \times 10^{15}$

(Standards NFC 26215, ASTM D 257, IEC 193)

3.6. Heat stability
Classification according to standard NF F 16 101
Fire classification..... I 4
(according to standard NF T 51071)
Smoke classification
- Opacity (according to standard NF X 10 702) ..... F2
- Combustion gas (according to standard NF X 70-100) ..... F2
- Smoke index ..... F2

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

# CAF 30



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| **Instruction of use** | Please consult your local ELKEM SILICONES sales office. |
| **Packaging** | • CAF 30 BLACK is available in<br>  ○ Drum of 210 KG (463.05 LB)<br>  ○ Drum of 25 KG (55.13 LB)<br>• CAF 30 RED is available in<br>  ○ Drum of 210 KG (463.05 LB)<br>• CAF 30 TRANSLUCENT is available in<br>  ○ Drum of 210 KG (463.05 LB)<br>  ○ Drum of 25 KG (55.13 LB)<br>• CAF 30 WHITE is available in<br>  ○ Drum of 210 KG (463.05 LB) |
| **Storage and shelf life** | When stored in its original packaging:<br>CAF 30 BLACK may be stored at a temperature between 2 °C/ 36 °F and 30 °C/ 86 °F for up to 24 months from its date of manufacturing.<br>CAF 30 RED may be stored at a temperature between 2 °C/ 36 °F and 50 °C/ 122 °F for up to 24 months from its date of manufacturing.<br>CAF 30 TRANSLUCENT may be stored at a temperature between 2 °C/ 36 °F and 30 °C/ 86 °F for up to 24 months from its date of manufacturing.<br>CAF 30 WHITE may be stored at a temperature between 2 °C/ 36 °F and 30 °C/ 86 °F for up to 24 months from its date of manufacturing.<br>Comply with the storage instructions and expiracy date marked on the packaging. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications. |
| **Regulation** | Please consult your local ELKEM SILICONES sales office. |
| **Limitations** | Please consult your local ELKEM SILICONES sales office. |
| **Safety** | Please consult the Safety Data Sheet of:<br>CAF 30 BLACK, CAF 30 RED, CAF 30 TRANSLUCENT and CAF 30 WHITE |

Visit our website www.silicones.elkem.com





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