

CAF[®] 4 DISPERSION

Description **CAF 4 DISPERSION** is a one component silicone elastomer which cures at room temperature:

- Acetic
- Sprayable.
- Off-white

Examples of applications **CAF 4 DISPERSION** is mainly used in industrial coating applications, and to produce release coatings.

Advantages The **CAF 4 DISPERSION** formulation is specially designed to produce very thin coat coatings without dilution.

CAF 4 DISPERSION is quick curing, has very good mechanical properties and good heat stability.

Characteristics **1. Processing / Curing**

1.1. Processing:

Processing is particularly easy, since the products are delivered ready to use. Application of **CAF 4 DISPERSION** can be carried out using a spray gun.

It is recommended to apply **CAF 4 DISPERSION** to clean and dry surfaces.

1.2. Curing:

CAF 4 DISPERSION starts curing as soon as the products come into contact with atmospheric moisture.

Skin formation time*, min. approx 12

Time required to cure 2 mm*, hours, approx 4

* *Temperature 23 °C, relative humidity 50 %*

The curing rate increases with temperature and hygrometry.

2. Properties before curing

Appearance..... fluid paste

Colour..... off-white

Odour acetic

Brookfield viscosity, mPa.s 6500
(Standards NF T 76105, ASTM D 445)

Solids content at 105 °C, % 72

CAF[®] 4 DISPERSION

Flash point (closed cup) < 0

Specific gravity at 25 °C..... 1. 02
(Standards ISO R 1183, DIN 53479, NMRPS 703)

3. Cured product properties

3.1. Specific gravity at 25 °C 1.15
(Standards ISO 2781, ASTM D 297, BS 903 part. A1)

3.2. Mechanical properties after 7 days at room temperature:

Shore A hardness..... 34
(Standards ISO R 868, DIN 53505, ASTM D 2240
BS 903 Part A7, NF T 46003, NMRPS 471)

Modulus at 100 % elongation, MPa 0.7
(Standards ISO R 37 (H2), DIN 53504, ASTM D 412
BS 903 Part A2, NF T 46002 (H2), NMRPS 470)

Tensile strength, MPa ... 3.6
(Standards ISO R 37 (H2), DIN 53504, ASTM D 412
BS 903 Part A2, NF T 46002 (H2), NMRPS 470)

Elongation at break, % 310
(Standards ISO R 37 (H2), DIN 53504, ASTM D 412
BS 903 Part A2, NF T 46002 (H2), NMRPS 470)

Tear strength, kN/m ... 4.2
(Standards ASTM D 624 specimen A, NMRPS 492)

3.3. Thermal properties:

- Lower usage temperature limit

Brittle point: – 65 °C

Temperature range in continuous use
(on a 2 mm thick film, 1000 h): – 60 °C to + 200 °C

- Maximum peak recommended temperature: + 225 °C
(on a 2 mm thick film, 72 h)

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.

3.4. Adhesion properties:

- on aluminium AG3
(1 mm thick joint, curing 7d at 23°C, NMRPS 748)

Shear strength, MPa 0.6

Type of failure.. cohesive

- on other surfaces:

Self adhesion on glass, enamel, ceramics, epoxy paint.

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Adhesion with primer:

- on polar plastics ... primer PM 820 or PP 878
- on stainless steel primer 131 or PM 820
- on other metals primer 131 or PM 820

3.5. Dielectric properties:

Dielectric strength, kV/mm 21
(Standards NF C 26225, ASTM D 419, IEC 243)

Dielectric constant at 1 MHz .. 2.9
(Standards NF C 26230, ASTM D 150, IEC 250)

Power factor at 1 MHz $2 \cdot 10^{-3}$
(Standards NF C 26230, ASTM D 150, IEC 250)

Volume resistivity, $\Omega \cdot \text{cm}$ $1 \cdot 10^{15}$
(Standards NF C 26215, ASTM D 257, IEC 193)

Packaging

- 1 l aluminium cartridges on pallets of 288 units.
- 25 kg tins on pallets of 10 units.
- 185 kg drums on pallets of 4 units.

Storage and shelf life

When stored in its original unopened packaging at a temperature of between + 2 °C and + 30 °C, **CAF 4 DISPERSION** can be used for up to 24 months from its date of manufacture (expiry date).
Comply with the storage instructions and expiry date marked on the packaging.

Past this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications.

Safety

Consult the safety data sheet for **CAF 4 DISPERSION**.

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