

CAF[®] 730

MAINTENANCE-SERVICING-REPAIR RANGE

November 2002

 TECHNICAL DATA SHEET
 Cancels and replaces SIL 01 395 3

Description

CAF 730 is a one component, thixotropic silicone elastomer, which cures at room temperature simply on contact with air humidity.

It is a product that is :

- Non flowing.
- High extrusion.
- Multi-purpose.

Applications

CAF 730 is particularly suited to bonding, protection and maintenance applications.

It is recommended for :

- Bonding/sealing in the aeronautics industry.
- Elastic bonding or protection of electronic components.
- Flexible bonding/bonding between metal and/or plastic components.
- Repair/servicing in industry and transport applications.

Advantages

- Non corrosive.
- Low odour.
- Excellent thermal ageing.
- Good dielectric properties.

Characteristics

1 – Processing/curing

CAF 730 is particularly easy to process, since the product is delivered ready to use. It can be applied either manually or using robotised application equipment.

CAF 730 is applied to one of the two surfaces and assembly must be carried out before the product has formed a skin.

It is recommended to apply **CAF 730** to clean and dry surfaces.

CAF 730 starts to cure as soon as the product is brought into contact with atmospheric humidity.

Skin formation time *, min	7
Curing time for 2 mm *, h	7
Cured thickness after 24 h*, mm	4.6

*Temperature 23°C, relative humidity 50%

The cure rate increases with temperature and hygrometry.

Characteristics
(Cont.)

2 – Properties before curing

Appearance	non flowing paste
Colour	white
Cure type	oxime
Specific gravity at 25°C	1.02 (Standards ISO R 1183, DIN 53479, NMRPS 703)
Flowability, in mm	≤ 2 (Standards BOEING S 7502, NMRPS 459)
Extrusion, g/min	≥ 120 (Standards NMRPS 495A 3 mm/3 bars)

3 – Properties after curing

3.1 Specific gravity at 25°C: 1.03
(Standards ISO R2781- DIN 53479 - BS 903 Part A1-ASTM D297)

3.2 Mechanical properties :

Shore A hardness..... 25
(Standards ISO R 868-DIN 53505-ASTM D 2240
BS 903 Part A7-NF T 46003-NMRPS 471)

Modulus at 100% elongation, MPa 0.5
(Standards ISO R 37 (H2)-DIN 53504-ASTM D 412
NF T 46002 (H2)-NMRPS 470)

Tensile strength, MPa 1.9
(Standards ISO R 37 (H2)-DIN 53504-ASTM D 412
NF T 46002 (H2)-NMRPS 470)

Elongation at break, % 400
(Standards ISO R 37 (H2)-DIN 53504-ASTM D 412
NF T 46002 (H2)-NMRPS 470)

Tear strength, kN/m 4.0
(Standards ASTM D 624 specimens A-NMRPS 492)

3.3 Thermal properties :

Temperature range for continuous use. - 55,+ 200°C
(On 2 mm thick film, 1000h)

Maximum recommended peak temperature... + 225°C
(On 2 mm thick film, 72 h).

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%. Moreover, when using at peak temperatures, exposure for periods of less than 72 h, enables higher maximum temperatures to be used.*

Thermal conductivity at 25°C, W/m.k 0.26

3.4 Adhesion properties :

- On aluminium AG3, primerless

Shear strength, MPa 0.2
(Joint 1 mm thick)

Type of failure adhesive

Characteristics
(cont.)

- On aluminium AG3 or on stainless steel with primer PP878, PM 832 HR Pex or PM 820 (*)

Shear strength, MPa 1.2
(Joint 1 mm thick)

Type of failure100% cohesive

On Polyesters, polyamides, ABS, polycarbonate, PMMA with primer PP878, PM 832 HR Pex or PM 820 (*)

Shear strength, MPa 1.0
(Joint 1 mm thick)

Type of failure100% cohesive

Comment : *Primer PP 878, PM 832 HR Pex or PM 820 (*) are not concerned by new regulations on glycol ethers.*

- Primerless self adhesion..... glass, enamel, ceramics

3.5 Dielectric properties :

Dielectric strength, kV/mm 19
(Standards NF C 26225 - ASTM D 419)

Dielectric constant at MHz 2.9
(Standards NF C 26230 - ASTM D 150)

Dielectric dissipation factor at 1MHz 2×10^{-3}
(Standards NF C 26230 - ASTM D 150)

Volume resistivity, $\Omega \cdot \text{cm}$ 4×10^{15}
(Standards NF C 26215 - ASTM D 257)

3.6 Miscellaneous :

Self-combustion temperature, °C 430
(Standards ASTM E 659 - D 2155 - DIN 51794)

Packaging

- 100 g tubes on pallets of 1600 units.
 - 310 ml cartridges on pallets of 1200 units.
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Storage and shelf life

When stored in its original unopened packaging at a temperature of between +2°C and +30°C, **CAF 730** can be used for up to 12 months from its date of manufacture (expiry date).

Comply with the storage instructions and expiry date marked on the packaging.

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

Safety

Consult the Safety Data Sheet for **CAF 730**.

Warning to users

The information contained in this document is given in good faith based on our current knowledge. It is only an indication and is in no way binding, particularly as regards infringement of or prejudice to third party rights through the use of our products.

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This information must on no account be used as a substitute for necessary prior tests, which alone can ensure that a product is suitable for a given use.

Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorisations.

Users are requested to check that they are in possession of the latest version of this document and RHODIA SILICONES is at their disposal to supply any additional information.



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