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Cancels and replaces SIL 02 245 3

CAF[®] 730

Maintenance servicing – repair range

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.

Examples of 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, approx | 1.02 (Standards ISO R 1183, DIN 53479, NM 703) |
| Flowability, in mm..... | ≤ 2 (Standards BOEING S 7502, NM 459) |
| Extrusion, g/min | ≥ 120 (Standards NM 495A 3 mm/3 bars) |

3. Properties after curing

| | |
|--|---|
| Specific gravity at 25 °C, approx..... | 1.03 (Standards ISO R2781- DIN 53479 - BS 903 Part A1-ASTM D297) |
|--|---|

3.1 Mechanical properties

| | |
|--|---|
| Shore A hardness, approx..... | 25 (Standards ISO R 868-DIN 53505-ASTM D 2240 BS 903 Part A7-NF T 46003-NM 471) |
| Modulus at 100% elongation, MPa, approx..... | 0.5 (Standards ISO R 37 (H2)-DIN 53504-ASTM D 412 NF T 46002 (H2)-NM 470) |
| Tensile strength, MPa, approx..... | 1.9 (Standards ISO R 37 (H2)-DIN 53504-ASTM D 412 NF T 46002 (H2)-NM 470) |
| Elongation at break, %, approx..... | 400 (Standards ISO R 37 (H2)-DIN 53504-ASTM D 412 NF T 46002 (H2)-NM 470) |
| Tear strength, kN/m, approx | 4.0 (Standards ASTM D 624 specimens A-NM 492) |

3.2 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, approx | 0.26 |
|--|------|

Characteristics (cont')

3.3 Adhesion properties

- On aluminium AG3, primerless

Shear strength, MPa, approx 0.2
(Joint 1 mm thick)

Type of failure.....adhesive

- On aluminium AG3 or on stainless steel with primer PM 820.

Shear strength, MPa, approx 1.2
(Joint 1 mm thick)

Type of failure 100% cohesive

- On Polyesters, polyamides, ABS, polycarbonate, PMMA with primer PM 820.

Shear strength, MPa, approx 1.0
(Joint 1 mm thick)

Type of failure. 100% cohesive

Comment: *Primer PM 820 is not concerned by new regulations on glycol ethers.*

- Primerless self adhesion glass, enamel, ceramics

3.4 Dielectric properties

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

Dielectric constant at MHz, approx 2.9
(Standards NF C 26230 – ASTM D 150)

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

Volume resistivity, Ω .cm, approx 4×10^{15}
(Standards NF C 26215 – ASTM D 257)

3.5 Miscellaneous

Self-combustion temperature, °C, approx..... 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.

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

Safety

Please consult the Safety Data Sheet of **CAF 730**.

CAF[®] 730

Visit our website www.bluestarsilicones.com

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