CAF 24 MF

Description

CAF 24 MF is a non-flowing one component silicone elastomer which cures at room temperature, for bonding and assembling metal or plastic engineering components, resistant to high working temperatures, in occasional or prolonged contact with inorganic lubricants or where weather resistance is required.

It is designed for these applications which request a flexible bond even with materials having differing thermal expansion.
- OXIMIC Technology, MEKO (Methyl Ethyl Ketoxime) FREE
- Adhesive
- High modulus
- Resistant to lubricants
- Black, grey, beige

Examples of applications

Sealing car engine or machine components, transmissions, hydraulic systems and oil-bath cooled equipment such as transformers, heaters and condensers.
- Repairing and after-market.
- Bonding casing, beacon lights and emergency lights in external conditions.
- Bonding sliding, windows, fixing aerials and electronic component, assembling heating modules, encapsulating electric contacts.

Key benefits

- Neutral system, solvent free and MEKO free.
- Non-corrosive.
- High mechanical properties.
- High thermal resistance up to 315 in short term exposure.
- Good resistance to lubricants.

Typical properties

1. Characteristics before curing

Properties	**CAF 24 MF**
Aspect	Pasty
Curing type	Oximic (MEKO free)
Colour	Black, grey, beige
Extrusion *(3 mm/3 bars, approx.)*	50
Specific gravity *(g/cm³, approx.)*	1.24

2. Curing

CAF 24 MF starts curing as soon as when in contact with atmospheric humidity. After air moisture exposition, the product is no more workable.

Properties	**CAF 24 MF**
Skin formation time *(23°C, 50% RH, minutes. approx.)*	6
Curing time on 2mm thick film *(23°C, 50% RH, hours, approx.)*	4.5
Cured thickness after 24h *(23°C, 50% RH, mm. approx.)*	4.6

It is possible to reduce the curing time with increasing temperature and/or air moisture.

3. Characteristics after curing

Mechanical properties after 7 days

Properties	**CAF 24 MF**

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Hardness Shore A *(DIN53505, approx.)*	38
Modulus at 100% elongation, *(ISO37, MPa, approx.)*	1.0
Tensile strength *(ISO37, MPa, approx.)*	3.3
Elongation *(ISO37, %, approx.)*	370

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4. Thermal Properties

Properties	**Temperatures**
Temperature limit for use in continuous operating *(on 2 mm –thick film, 1000 h)*	- 60°C to + 285°C
Maximum peak temperature recommended in use *(on 2 mm-thick film, 72 h)*	+ 300°C (briefly 315°C)

N.B.: these temperatures values are not absolute limits but the range within which the initial properties are not reduced by more than 50%.

5. Chemical resistance

Immersion during 1000 h in the following medias

Properties	**1000 h in 5 W 30 oil at 120°C**	**1000 h in Water/Glycol (50/50) at 95°C**
Shore A hardness *(approx.)*	21	24
Tensile strength *(MPa, approx.)*	1.8	1.0
Elongation at break *(%, approx.)*	550	410
*S*welling *(%, approx.)*	4%	2%

6. Adhesion properties

Lap shear test (1 mm-thick gasket, after curing 14 days at 23°C 50% RH)

Lap Shear strength (MPa)	**CAF 24 MF**
Aluminum	1.8

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

Instruction of use

CAF 24 MF can be applied manually or by means of a pneumatic spraying device in the two following processes:

- **Formed In Place Gasket (FIPG, Wet gasket)**

CAF 24 MF

Apply a bead of **CAF 24 MF** to one of the two parts to be assembled. The assembly has to be made before **CAF 24 MF** has formed the skin. The curing time depends on air moisture and on the thickness of the glue.

- **Cured in Place Gasket (CIPG, Dry gasket)**

  Apply the product to one of the two parts to be assembled. Wait on the complete curing of the product before assembling the second part. In that case, it's possible to disassemble without the destruction of the silicone gasket.

In case of reparation, remove existing gaskets with Silicone Remover. Follow the instructions of the Technical Data Sheet of this product, in order to obtain dried and cleaned surfaces before dispensing **CAF 24 MF**.

Regulation	Please consult your local ELKEM SILICONES sales office.
Limitations	Please consult your local ELKEM SILICONES sales office.

Packaging	• CAF 24 MF BEIGE is available in
	  ○ Drum of 200 KG (441 LB)
	• CAF 24 MF BLACK is available in
	  ○ Drum of 200 KG (441 LB)
	• CAF 24 MF GREY is available in
	  ○ Drum of 230 KG (507.15 LB)

Storage and shelf life	When stored in its original packaging: CAF 24 MF BEIGE may be stored at temperatures between 2°C / 36°F and 30°C / 86°F for up to 15 months from its date of manufacturing. CAF 24 MF BLACK may be stored at temperatures between 2°C / 36°F and 30°C / 86°F for up to 15 months from its date of manufacturing. CAF 24 MF GREY may be stored at temperatures between 2°C / 36°F and 30°C / 86°F for up to 15 months from its date of manufacturing. 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.
Safety	Please consult the Safety Data Sheet of: CAF 24 MF BEIGE, CAF 24 MF BLACK and CAF 24 MF GREY

Visit our website www.elkem.com/silicones/