CAF 510

Description

CAF 510 is a one component silicone elastomer curing at Room Temperature:

- Neutral
- Thixotropic
- Primer less adhesion
- Available in white, grey and black

Examples of applications

CAF 510 is a room temperature neutral cure elastomer used for applications which need primerless adhesion and neutrality and can be used on numerous substrates. It is used for low elastic modulus flexible bond.
CAF 510 is used for:

- Sealing and bonding of plastic materials.
- Bonding of headlight.
- Industrial maintenance.
- Domestic appliances (ovens and cooker fascias, microwaves ovens, dryer and hob components).

Key benefits

CAF 510 combines the advantages of:

- Outstanding adhesion to many surfaces
- Odourless, it is particularly well accepted in the workstation environment.
- Non corrosive, chemically neutral
- Its mechanical properties and good adhesion to many surfaces allow perfect assembly and full sealing between materials of different types.
- Its high elasticity properties allow it to withstand significant differential expansion movements.

Typical properties

1. Characteristics of the non cured product*

*At 23°C 50%HR

Appearance	Non flowing paste
Odour	Alcoxy
Colour	White, grey or black
Flowability (norms BOEING S7502, NM459)	< = 3
Specific gravity (Norms NM703, ISO R1183, DIN 53479)	1.38
Extrusion rate g/min (3mm, 3 bars, norm 495A, average)	30

2. Polymerization

Skin Formation Time *(at 23°C,50% HR, min, approx.)*	10
Curing Rate *(at 23°C, 50% HR, approx.)*	
- Time required to cure 2 mm, Hour	15

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- Cured thickness after 24, /mm	3

CAF 510 starts curing as soon as the product comes into contact with atmospheric moisture. The curing rate increases with both temperature and hygrometry.

3. Characteristics of the cured product

on 2 mm thick film, after 7 days curing at 23°C 50%HR

Shore A Hardness *(ISO R 868,NM 471, ASTM D 2240 BS903 Part A7, NF T 46003, DIN 53505, approx.)*	24
Modulus at 100% Elongation *(Norms ISO R37 (H2), DIN 53504, ASTM D 412 BS 903 Part A2, NF T 46002 (H2), NM 470, MPa)*	0.5
Tensile Strength *(Norms ISO R37 (H2), DIN 53504, ASTM D 412 BS 903 Part A2, NF T 46002 (H2), NM 470, MPa.)*	1.4
Elongation at break *(Norms ISO R37 (H2), DIN 53504, ASTM D 412 BS 903 Part A2, NF T 46002 (H2), NM 470, %.)*	600

4. Thermal properties on 2 mm thick film

Lower usage temperature limit (brittle point, °C)	- 60°C
Upper usage temperature limit in continuous (1000H, maximum Temperature, °C)	+ 180°C
Upper usage temperature limit in peak (72H, maximum Temperature, °C)	+ 200°C

Note: Determined by measuring the mechanical properties and Shore A Hardness before and after treatment. These values aren't absolute limits; they represent the range within which variations in mechanical properties are not modified by more than 50%. Furthermore, for peak use, periods of exposure shorter than 72 h, allow higher maximum temperatures.

5. Adhesion properties

1 mm thick, 7 days curing at 23°C, 50% HR, norm NM748

Glass (MPa, approx.)	0.8
Alu AG3 (MPa, approx.)	0.6
Polyamide GF 30% (MPa, approx.)	0.6
Polycarbonate (MPa, approx.)	0.4

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	Type of failure	100% Cohesive

Note: CAF 510 gives primerless adhesion on numerous other substrates such as: enamel, painted steels, numerous plastics.
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 510** is ready to use. Processing is particularly easy, since the products are delivered ready to use. Application can be carried out either manually or using robotic application equipment. **CAF 510** is applied to one of the two joint surfaces and assembled before the product has formed a skin. It is recommended to apply CAF 510 onto clean & dry surfaces.
Regulation	Please consult your local ELKEM SILICONES sales office.
Limitations	Please consult your local ELKEM SILICONES sales office.
Packaging	• CAF 510 GREY is available in ○ Drum of 260 KG (573.3 LB) ○ Piece of 0.388 KG (0.86 LB) ○ Drum of 30 KG (66.15 LB) • CAF 510 WHITE is available in ○ Drum of 260 KG (573.3 LB)
Storage and shelf life	When stored in its original packaging: CAF 510 GREY may be stored at temperatures between 2°C / 36°F and 30°C / 86°F for up to 12 months from its date of manufacturing. CAF 510 WHITE may be stored at temperatures between -20°C / -4°F and 30°C / 86°F for up to 12 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 510 GREY and CAF 510 WHITE

Visit our website www.elkem.com/silicones/