

# CAF<sup>®</sup> 505 PEX

## Alcoxy range Performance assembly

### Description

**CAF 505 PEX** is a one component, thixotropic (non-flowing) silicone elastomer, which cures at room temperature simply on contact with air humidity.

Odourless, it is particularly well accepted in the workstation environment.

It is a product that is :

- Alcoxy.
- Translucent.
- Non flowing.

### Applications

**CAF 505 PEX** has been specially designed for bonding and sealing in industrial applications.

Its mechanical properties and good adhesion properties to many surfaces allow perfect assembly and full sealing between materials of different types.  
Its elongation at break properties allow it to withstand significant differential expansion movement.

Bonding applications in the domestic appliance and electronics industries :

- Bonding of microwave oven components.
- Bonding of ceramic cooking hob components, ovens, cooker facias.
- Many bonding applications in small domestic appliances.
- Bonding of television tubes.

### Advantages

- Odourless.
- Non corrosive.
- High cure rate

### Characteristics

#### 1 – Processing / Curing

##### 1.1 Processing

Processing is particularly easy because the product is delivered ready to use. Application can either be carried out manually or using robotised application equipment.

**CAF 505 PEX** is applied to one of the two surfaces and assembly must take place before the product has formed a skin.

It is recommended to apply **CAF 505 PEX** onto clean and dry surfaces.

Curing of **CAF 505 PEX** starts as soon as the product comes into contact with atmospheric humidity.

Skin formation time \*, min .....10  
 Cured thickness after 24 h\*, mm .. .....4

\*Temperature 23°C, relative humidity 50%

**CAF<sup>®</sup> 505 PEX**

The cure rate increases with both temperature and hygrometry.

**2 – Properties before curing**

Appearance.....	Non flowing paste
Colour ..	Translucent
Cure type.....	Alcohol
Specific gravity at 23°C .....	1.03 (Standards ISO R 1183, DIN 53479, NMRPS 703)
Flowability, mm .....	≤ 2 (Standard BOEING S 7502 - NMRPS 459)
Extrusion, g/min .....	≥80 (Standard NMRPS 495 A 3mm/3 bars)

**3 – Properties after curing**

3-1 *Specific gravity of the cured product at 25°C* .....1.02  
(Standards ISO R 2781, BS 903 Part A1, ASTM D 297)

3-2 *Mechanical properties after 7 days at room temperature*  
(Measured on 2 mm thick films) :

Shore A hardness.....17  
(Standards ISO R 868, DIN 53505, ASTM D 2240 BS 903 Part A7, NFT 46003, NMRPS 471)

Modulus at 100% elongation, MPa ... 0.35  
(Standards ISO R 37(H2), DIN 53504, ASTM D 412 BS 903 Part A2, NFT 46002 (H2), NMRPS 470)

Tensile strength, MPa. ....2  
(Standards ISO R 37(H2), DIN 53504, ASTM D 412 BS 903 Part A2, NFT 46002 (H2), NMRPS 470)

Elongation at break, % .....750  
(Standards ISO R 37(H2), DIN 53504, ASTM D 412 BS 903 Part A2, NFT 46002 (H2), NMRPS 470)

**3-3 Thermal properties**

Temperature range in use. ....≤ to 180°C

**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%.*

**3-4 Dielectric properties**

Dielectric strength, kV/mm .....23  
(Standards NFC 26225 – ASTM D419-IEC 243)

**CAF® 505 PEX**

*3-5 Adhesion properties*

- On Aluminium AG 3 :

Shear strength, MPa ... .....0.9  
(Joint 1 mm thick, curing 7d at 23°C, NMRPS 748)

Type of failure ..... 100% cohesive

- On glass :

Shear strength, MPa .... .....1.1  
(Joint 1 mm thick, curing 7d at 23°C, NMRPS 748)

Type of failure ..... 100% cohesive

- On other surfaces :

Self-adhesion to enamel, ceramics and many different plastic surfaces (PVC, ABS, PCarbonates, PAmides...).

**Packaging**

- 310 ml cartridges on pallets of 1248 units.
- 25 kg tins on pallets of 10 units.
- 210 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 505 PEX** 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**

Consult the Safety Data Sheet for **CAF 505 PEX**.

Visit our website [www.bluestarsilicones.com](http://www.bluestarsilicones.com)

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