Elkem
A Bluestar Company

Silicones

Delivering your potential

Caf

Bluesil

Silicones solutions for automotive industry

www.silicones.elkem.com

Our sealing and bonding solutions specially designed for the automotive industry

Why choose Elkem Silicones?

Elkem Silicones is a complete integrated global silicones manufacturers with more than 60 years of silicone expertise. Thanks to its worldwide upstream and downstream operations, Elkem Silicones offers a comprehensive range of silicone technologies in support of diverse specialty markets including paper release, healthcare, moldmaking, automotive, aerospace, personal care and electronics.

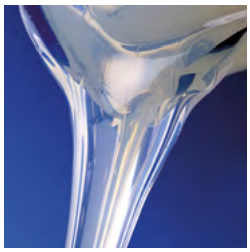
Our worldwide quality focus

At Elkem Silicones we apply our Quality Policy in line with the ISO 9001 standard, linked to a management system based on strong continuous Improvement programs.

Lean manufacturing tools and methodologies are deployed through our EBS initiative (Elkem Business System) to enhance our product lines. Our worldwide operating centers - headquarters, laboratories, sales & development processes and manufacturing sites - are all ISO 9001 certified and specialist product ranges also comply with specific industry standards, such as the EN/AS 9100 for aerospace components.

We create agile innovation

Since 1944, we have continuously developed new technologies, processes and solutions to address our customers' needs. In a changing environment, we question the status quo, we generate new ideas and constantly progress, in close cooperation with our customers.



A worldwide network to deliver our customers because we care

Our upstream and downstream production units, working closely with the worldwide sales network of our subsidiaries, agents and distributors, enhance our understanding of markets and enable us to satisfy the current and future needs of Elkem Silicones customers.

We offer technical support to serve demanding markets

Our dedicated teams support you from product approval to after-sales technical services, including prototype production. With very high-performance facilities and unique know-how, our teams can validate technical solutions in the laboratory to cover all industrial applications that require bonding, sealing or potting. We test on-site performance in conjunction with your teams to define and determine the optimal solution for your processes, and to obtain your final approval.

Before ramping up to industrial-scale production, limited prototype series can be produced in-house by our technical laboratories, with access to a robot manufacturing application. Our technicians provide services on-demand to customers to assist and advice them throughout the production phase. At Elkem Silicones, we are more than just high quality silicone products. From technical support to customized formulations with quality, regulatory and supply chain services, Elkem Silicones has the people in place when and where you need them.

Elkem Silicones solutions more than just outstanding silicones properties

Elkem Silicones offers for automotive industry manufacturer, equipment supplier or sub-contractors customers an extensive range of products to meet their increasingly demanding requirements in terms of performance features, reliability and cost effectiveness

Sealing & Bonding main applications

Gearbox, Starter units Lubrication
- Wide range lubricating and excellent wash-out greases

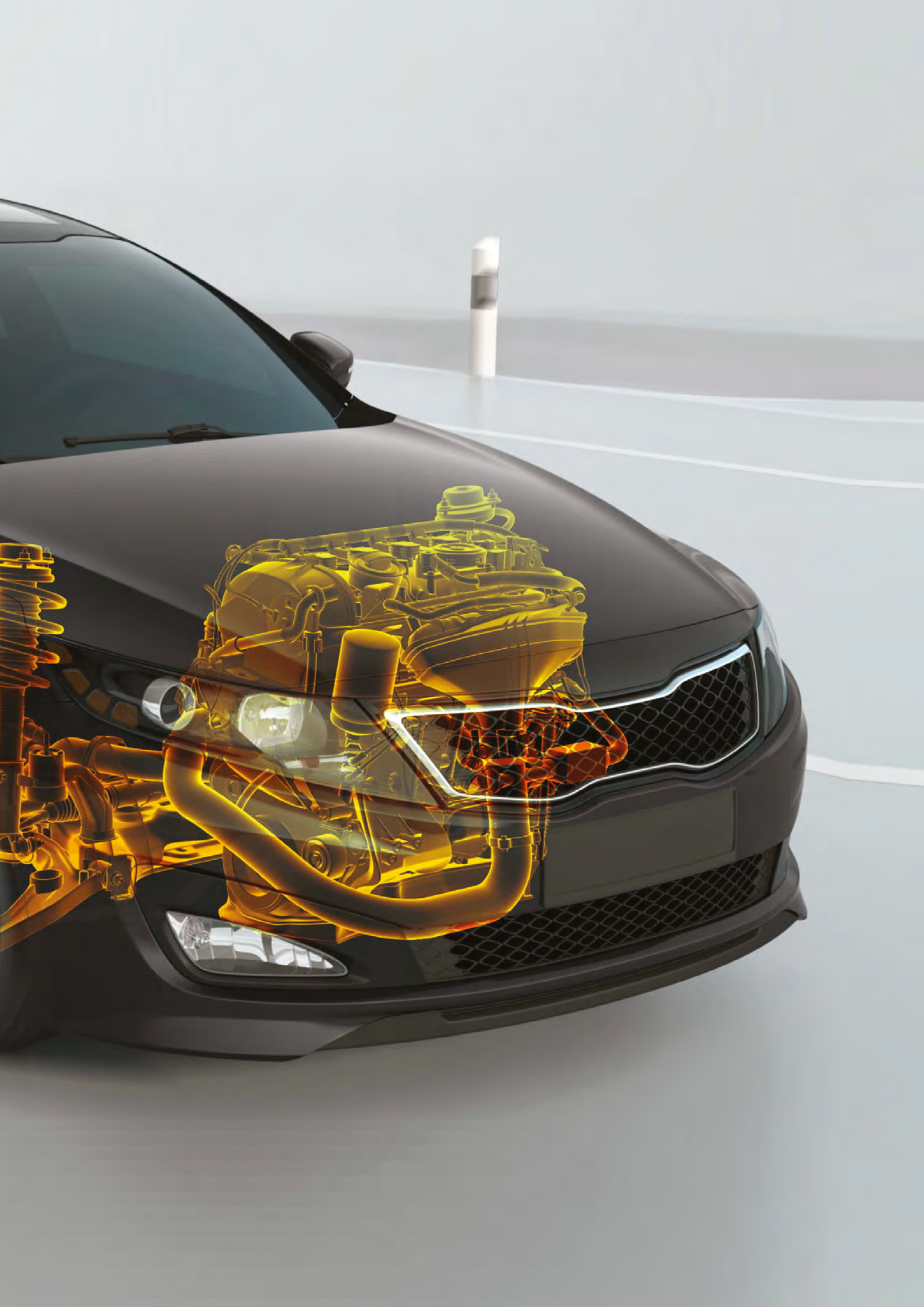
Head Lamp and Sun- Roof Bonding
- Excellent adhesion on plastic substrates, Non corrosive, UV and Thermal Resistance

Engine and Gearbox gasketing
- Cured in Place Gaskets (CiPG) and Formed in Place Gaskets (FiPG)

Cylinder head gaskets
- Easy on-line processing, thermal performance and resistance to lubricants and cooling fluids, outstanding durability and compression set

Electric and Hybrid Vehicle
• Battery protection

On-board electronic devices, sensors
• Easy on-line processing, dielectric properties, non corrosive products



Flexible bonding and gasketing of CAF™ technology provide high performance for your applications

Silicone solutions for bonding and gasketing

Elkem Silicones has developed an exhaustive range to cover all technical, economic and environmental requirements.

CAF™ products (also known as RTV-1) are one component silicone elastomers that cure at room temperature as soon as the product comes into contact with atmospheric moisture. The cure rate increases with temperature and ambient humidity level.

CAF™ products are recommended when these conditions are required:

- Self levelling or thixotropic properties
- Sealing & protection against water
- Heat & humidity resistance
- High mechanical properties
- Sealing & bonding of metal & plastic components subject to thermal stresses

In a wide range of temperature:

With high temperature resistance -60°C up to +300°C

For the main following applications

- Cylinder head cover
- Bed plate
- Oil sump
- Engine front cover
- Gear box
- Water pump
- Oil pump
- Intake manifold
- Oil filter
- Headlamps
- Bonding of plastic parts
- Bonding of metal parts
- Sun-roof seals
- Molded gasket
- Anti-vibration assembly

01

CAF™ and CAF™ AXAD
RTV-1 and activated RTV-1 elastomers

		FORMED IN PLACE GASKET (FIPG)			
		CAF 33	CAF 5661 CAF 5662	CAF 510	CAF 50
	PRODUCT CATEGORY (1)	Non-flowing, adhesive	Non-flowing, adhesive	Non-flowing, self-adhesive, neutral	Non-flowin g, self-adhesive, neutral
	MAIN CHARACTERISTICS	Heat stability, chemical resistances	High hardness and heat stability	High elongation	Good adhesion and mechanical properties
	COLOR	Red-black	Ivory-black	Grey	Black
PROPERTIES BEFORE CURING	CURE-TYPE	Acetoxy	Acetoxy	Alkoxy	Alkoxy
	SPECIFIC GRAVITY AT 25°C (2)	1.04	1.14/1.12	1.38	1.25
	VISCOSITY (MPa.s) (3)				
	EXTRUSION (g/min) (4)	50	100/120	30	160
	FLOWABILITY (5)	< 2 mm	< 5 mm	< 3 mm	1 mm
CURED COMPOUND	SKIN FORMATION TIME (min)	6	6	10	15
	SETTING TIME FOR A 2 MM THICKNESS (h)	6	7	15	16
	CURED THICKNESS AFTER 24 H (mm)	4.3	4	3	2.5
MECHANICAL PROPERTIES AFTER CURING (7 DAYS) (6)	SHORE A HARDNESS FOR 6 MM THICK SECTION (points) (7)	25	55	24	33
	SECANT MODULUS FOR 100% ELONGATION (MPa) (8)	0.6	3.3/2.5	0.5	0.7
	TENSILE STRENGTH (MPa) (8)	2.5	5.8/5	1.4	2.1
	ELONGATION AT BREAK (%) (8)	500	200/220	600	350
	TEAR STRENGTH (kN/m) (9)	5.4	10	-	8.5
	LAP SHEAR STRENGTH (MPa) (10)	1.4	2.5/3.3	0.6	1.7
	TYPE OF FAILURE CF (cohesive failure) AF (adhesive failure)	CF	CF	CF	CF
PHYSICAL PROPERTIES AFTER CURING	LOWER SERVICE TEMPERATURE (°C)	- 65	- 65	- 60	- 60
	MAXIMUM CONTINUOUS SERVICE TEMPERATURE, 1000 H (°C)	250	250	180	185
	MAXIMUM PEAK SERVICE TEMPERATURE, 72 H (°C)	300	300	200	220
STORAGE	SHELF LIFE FROM THE PRODUCTION DATE (months)	24	18	12	6

(1) Adhesive: Adhesion without primer on aluminium, glass, enamel, ceramics. Other surfaces require a primer
Self-adhesive: Adhesion without primer on most of the substrates including plastics
(2) ISO R 1183, DIN 53479, NM 703
(3) Brookfield NFT 76105, ASTM D445
(4) NM 495 A 3 mm / 3 bars
(5) Non-flowing: Boeing S 7502 NM 459 (mm), flowing: MIL S 880 2D, NM 458 (sec or min)
(6) Temp. 23°C, relative humidity 50%
(7) ISO R 868, DIN 53505, ASTM D2240, BS 903 (A7), NFT 46003, NM 471
(8) ISO R 37 (H2), DIN 53504, ASTM D 412, BS 903 (A2), NFT 46002 (H2), NM 470
(9) ASTM D624 specimen A, NM492
(10) Aluminum AG-03 specimen, 1 mm thick joint, NM748, measurement made after 7 days for acetoxy products and after 14 days for oximic and alkoxy products

			CURED IN PLACE GASKET (CIPG)		
CAF 530	**CAF 24MF**	**CAF 5552 MF**	**CAF 33 AXAD**	**CAF 5651 AXAD**	**ESA 8352 A&B**
Non-flowing, self-adhesive, neutral	Non-flowing, self-adhesive, neutral	Non-flowing, self-adhesive, neutral	Non-flowing, self-adhesive	non flowing, self-adhesive	Non-flowing, self-adhesive
Good adhesion and high mechanical properties	Heat stability, good adhesion, oil resistance	Good adhesion, oil resistance	Accelerated curing, high elongation	Fast cure, mechanical properties fluid resistance	Quick adhesion at Room Temperature
Black-white	Grey, black, beige	Black	Black	Grey	Dark Grey
Alkoxy	Oxime Meko*free	Oxime Meko* free	Activated acetoxy	Activated acetoxy	Alcoxy
1.3	1,24	1.33	1.04/1.43	1.14/1.43	1,3 / 1
	-		-/-		85000 / 90000
130	50	90			
< 2 mm	-	< 5 mm	≤ 5 mm	≤ 5 mm	-
10	6	6	4	4	
8	4,5	6			
3.5	4,8	3.5			
34	38	40	25	53	50
0.9	1,04	0.9	0.6	2,5	
3.5	3,3	1.6	2.4	4,4	2,7
450	380	300	500	200	250
15	-	-	6	7,4	-
1.2	1,8	0.8	2.1	2.7	1,5
CF	CF	CF	CF	CF	CF
- 60	-60°C	- 70	- 65	- 70	-70°C
150	285	200	180	220	180
185	300	250	250	275	220
12	12	12	18	18	12

* Methylethyl ketoxime

Performances & benefits

Formed in Place Gasket (FiPG) CAF™

- The bead is applied to one of the part to be assembled.
- In the few minutes following application and before skin formation, the part with the bead is brought together with the other part. Adhesion increases as the CAF™ bead cures, thus ensuring sealing.
- Dismantling does not damage the parts and a new bead must be laid when reassembling after repair (this operation can be carried out manually).

Flexible bonding

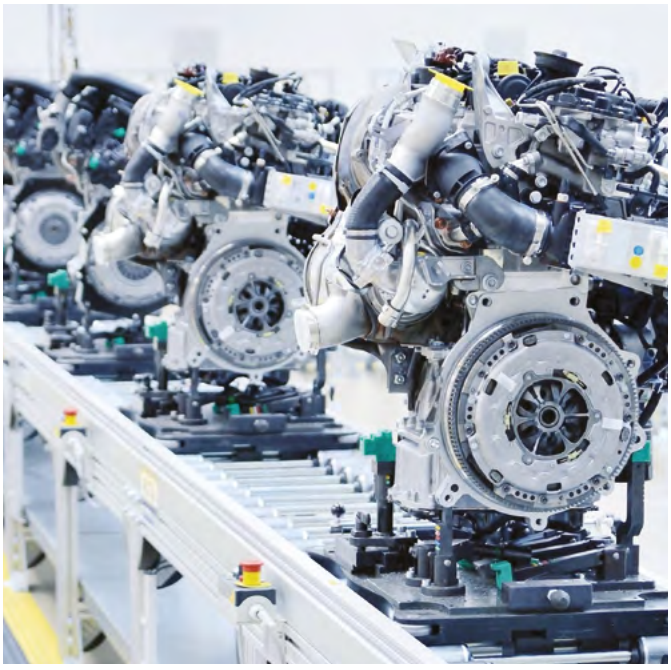
CAF™

- After curing, CAF™ products are transformed in a flexible bonding which absorbs significant differential dilatation between 2 substrates.
- Outstanding weatherability (UV, Thermal, chemical resistance)
- High bonding performances on various substrates (ex: aluminium, steel, cast iron, ...).

BLUESIL™ ESA

- Two components quick cure at room temperature
- Excellent mechanical properties, very good heat stability
- Complete sealing with jointing different material subject to thermal strains
- Excellent adhesion on several substrates

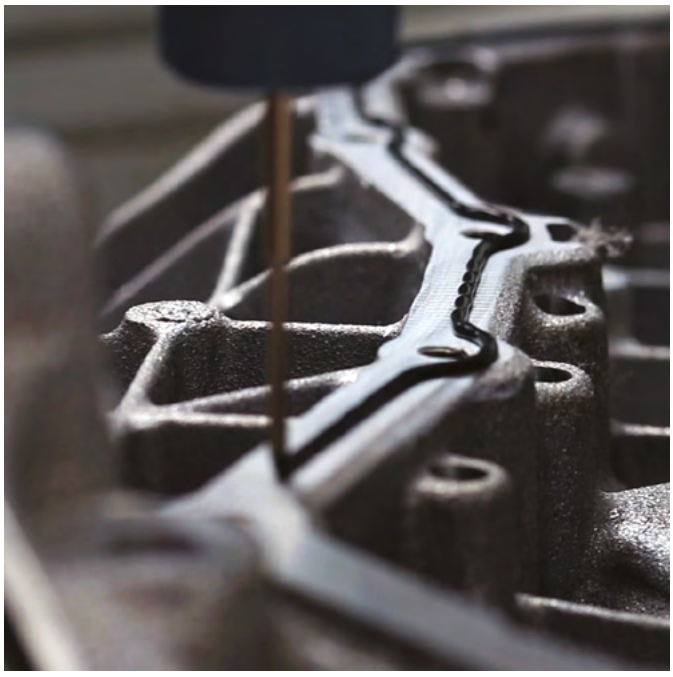
CAF™ products are sold in various packs including 100g tubes, 22 or 223 liters drums and 260 ml to 310 ml cartridges.
As for all of our products, our direct sales network, backed up by our local specialist distributors, provides high-performance services.



Elkem Silicones offers a specific range designed for productivity requirements with CAF™ AXAD technology which contain an accelerator (AXAD B part) added to an acetoxy CAF™ (RTV-1 A part).

Cured in Place Gasket (CiPG) CAF™ AXAD

- The bead of product is laid by a robot on one of the parts to be assembled.
- The bead of CAF™ AXAD cures quickly with or without heating, the adhesion strength on metal can be modulated as required.
- The complete curing for CAF™ AXAD needs 30 minutes at 25°C and only 5 minutes at 60/80°C.
- Compression and cohesion of the gasket provide a gas-tight seal. The mechanical properties and the outstanding resistance to hot fluids and gases enable successive dimantling and assembly without deterioration of the gasket.



Applications

		One component (RTV-1)				
		FORMED IN PLACE GASKET (FIPG)				
		CAF 33	CAF 5661/CAF 5662	CAF 510	CAF 50	CAF 530
DRIVE TRAIN GASKETS	Cylinder head cover	•	•		•	
	Bed plate	•	•		•	
	Oil sump	•	•		•	
	Engine front cover				•	
	Gear box	•	•		•	
	Water pump	•	•		•	
	Oil pump				•	
	Intake manifold			•	•	
	Oil filter			•	•	•
BONDING	Headlamps				•	•
	Bonding of plastic parts			•	•	
	Bonding of metal parts	•	•	•	•	•
BODYWORK CHASSIS	Sun-roof	•			•	•
	Molded gasket					
	Anti-vibration assembly					•

		Bi component		
		CURED IN PLACE GASKET (FIPG)		
CAF 24 MF	CAF 5552 MF	CAF 33 AXAD	CAF 5651 AXAD	ESA 8352 A&B
•	•	•	•	
•	•	•	•	
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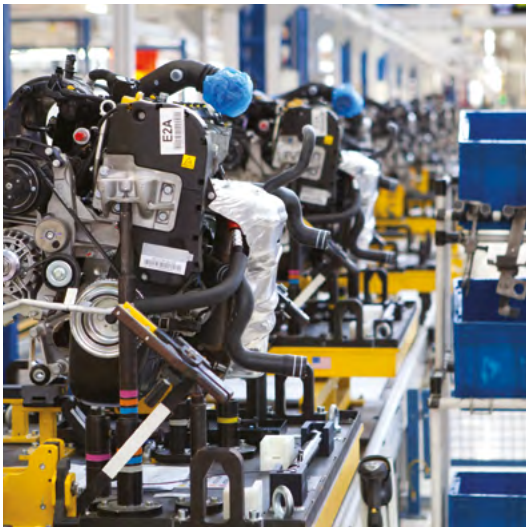
02

The best solution to optimize productivity and performance



Silicones solutions for silk-screening, varnishing & impregnating

- Cylinder head gasket is probably the most famous gasket in an automotive engine, and it requires a perfect reliability. BLUESIL™ Resins range has been the standard for decades on impregnating and varnishing fibrous Cylinder Head Gaskets.
- We have been involved during the last decade in technological breakthrough to the multi-layers steel (MLS) Cylinder Head Gaskets and BLUESIL™ Resins as well as BLUESIL™ ESA RTV-2 ranges now used.
- More specifically, BLUESIL™ ESA RTV-2 range are used for the shoulders applied using silk-screening process and BLUESIL™ UV curing resins are increasingly being used varnish these new generation of Cylinder Head Gaskets.

Benefits

- High adhesion
- High thermal stability
- Good resistance to lubricating fluids
- Permanent release effects

BLUESIL™ Resins & ESA

	Shoulder		Impregnating		Varnishing			
	Solvent free	Solvent free	Solvent based	Solvent free	Solvent based	Solvent free		
CURING TYPE	PA	PA	PC		PC	PA		UV
GRADE	ESA 7241 A&B	ESA 7244 A&B	Resin 20B	WR68	Resin 20B	Resin 21385A	Resin 21385B	Resin UV1 350
COLOUR	Off White	Blue	Trans	Trans	Trans	Trans	Trans	Trans
SOLVENT			Xylène		Xylène			
DRY CONTENT (%)	100	100	83	100	83	100	100	100
VISCOSITY (mm^2/S)	90000/ 30000	95000/ 35000	700	25	700	2500	8000	350
CURING	10' at 150°C	10' at 150°C	15' at 170°C		15' at 150°C	2' to 3' at 150°C		3 s * at 0.04/ 0.07 J/cm^2
CATALYST	Ratio 1:1	Ratio 1:1	Sic 15 or Cata 11011	Titanate	Sic 15 or Cata 11011	Cata 11091		Cata UV 211
HARDNESS shA	52	52	40	>60	40	45	40	40
BATH STABILITY	16h	16h	>10h	~4h	>8h	>15d	>15d	>8h
PROCESSING	Silk-screening	Silk-screening	Immersion	Roll	Roll			

* With 120 watts UV lamp

BLUESIL™ ESA

- BLUESIL™ ESA products are solventless, quick curing, self levelling, RTV-2 elastomer with good thermal conductivity. Thanks to its low viscosity, BLUESIL™ products are easy to apply by silk-screening process, especially for cylinder head gasket

- After polymerization, BLUESIL™ ESA 7244 A&B and ESA 7241 A&B are transformed into a flexible adhesive film which is particularly resistant to cooling fluids and engine lubricants. Moreover, the outstanding resistance to high temperature ensures that the product carries out its functions for a long time. BLUESIL™ ESA 7244 A&B and ESA 7241 A&B are intended for bonding metal, engineering plastics and epoxy surface in various automotive industry: Cylinder head gaskets, starters, alternators,...

BLUESIL™ Resins

- Resins are relatively low molecular weight polymers with a tree dimensional branchained structure. They are available solventless or diluted in solvent depending on the customer process with 3 different curing types: polycondensation, polyaddition or UV curing

- After polymerization, BLUESIL™ Resins produce an elastomeric coating with high adhesion on many substrates, high engine fluids resistance (lubricant, cooling liquid, etc...), outstanding thermal stability up to 250°C and permanent release effect. BLUESIL™ Resins offers high performances for impregnating and varnishing Cylinder Head Gaskets.

03

Pastes and Greases offer you the best performance stability in a wide range of temperatures

Silicones solutions for lubrication

Covering a very wide range of viscosities, Elkem Silicones Pastes and Greases are ideal for a variety of technical applications: from extreme temperature lubrication or lubrication that comes in contact with oxygen.

BLUESIL™ Pastes and Greases: choosing performance

On the strength of their mixed mineral and organic components, Elkem Silicones Pastes and Greases feature a range of outstanding properties:

- Stability over time and over a wide range of operating temperatures:from - 60°C to + 200 °C
- Outstanding chemical inertness - resistance to oxidation, chemical agents and ageing (UV, weathering, ozone, etc.)
- Very hydrophobic, providing added resistance to weathering.

Pastes for robust protection

- Excellent dielectric characteristics providing outstanding electrical insulation
- Robust protection against corrosive atmospheres and conductive or abrasive dusts
- High levels of release properties

Greases for reliable lubrication

- Good lubricating power in a wide range of temperatures
- High resistance to oxidation and corrosion and wash-out
- Very high drip point.

Elkem Silicones Pastes and Greases are sold in various formats, including tubes, 1 kg - 5 kg - 25 kg tins and 200 kg drums.

As is the case for all of our products, our direct sales network works closely with our local specialist distributors, to ensure the best possible service for our customers.

Automotive

- Lubricating devices and vehicles exposed to cold and hot conditions: gearboxes, starter units, etc.
- Heat protection and evacuation: high thermal conductivity pastes, alternators, etc.

Properties

		BLUESIL ™			
		PASTE 340	PASTE 408	GRS 33 NG	GRS 55 NG
PHYSICAL PROPERTIES	COLOR	White	Translucent to whitish	Brown	
	SPECIFIC GRAVITY AT 25°C	2.2	1,01	0.97	0.96
	WORKED PREPARATION (mm/10)(1)	280	280	280	290
	RESTED PREPARATION (mm/10)(1)	270	270	250	
	EXUDATION (%) (2)	< 1.5	< 0.5	< 1	< 3
	EVAPORATION (%)(2)	< 1.5	< 3	< 3	< 1,4
	DROP POINT (°C) (3)			220	220
THERMAL PROPERTIES	SERVICE TEMPERATURES (°C)	- 40 to + 250	- 40 to + 200	- 70 to + 200	- 65 to + 175
	THERMAL CONDUCTIVITY AT 25°C (W/mK)	0.52	0.19		
DIELECTRIC PROPERTIES	DIELECTRIC STRENGTH (kV/mm) (4)	> 15	> 20		
	DIELECTRIC STRENGTH AT 1 kHz (5)	3.5	2.5		
	DISSIPATION FACTOR AT 1 kHz (5)	$5.0.10^{-3}$	$3.0.10^{-3}$		
	VOLUME RESISTIVITY (Ω.CM) (6)	$> 1.10^{13}$	$> 1.10^{13}$		
STORAGE	SHELF LIFE FROM THE PRODUCTION DATE (MONTHS)	18	36	60	60

(1) NFT 6012, ASTM D 217, DIN 51804
(2) After 24h at 200°C
(3) ASTM D566
(4) NFC 26225, ASTM D419, IEC 243
(5) NFC 26230, ASTM D150, IEC 250
(6) NFC, ASTM D257, IEC 93

Applications

		BLUESIL™			
		PASTE 340	PASTE 408	GREASE 33 NG	GREASE 55 NG
	THERMAL DISSIPATION	•			
PROTECTION	CORROSION		•	•	•
LUBRIFICATION	METAL/PLASTICS MECHANISMS, POWER DOOR		•		
	GEAR BOX, STARTERS UNITS			•	
	PISTON, O'RING				•

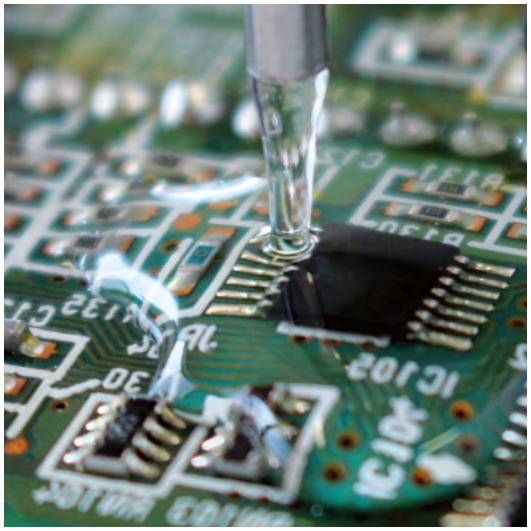
04

Potting and encapsulating materials for your sensitive electronics

Silicones solutions for on board electronics

There is a growing need to protect sensitive components against environmental factors, such as dust and moisture, as well as fluids, heat, and fire exposure. Silicones are the materials of choice for potting and encapsulating sensitive Electronics like sensors, actuators, central processing units (CPUs), printed circuit board, as they are the first line of defense against outside aggression. Elkem Silicones offers a wide range of technologies for potting and encapsulating including:

- Gels: thanks to the low modulus, these materials can protect against external influences and transmission of mechanical stress, with easy reworkability
- Elastomers: with high mechanical performances, high thermal resistance and fire resistance (UL certification).



BLUESIL™ ESA Gel Properties

PRODUCTS	APPLICATION	DESCRIPTION	COLOR	RATIO	VISCOSITY (mPa.s)	PENETRATION (1/10mm)	POT LIFE
ESA 6010 A&B	Potting	Inherent tack, high viscosity	Clear	1:1	60 000	170	120 min
ESA 6016 A&B	Potting	Inherent tack, high damping, low extractible	Clear	1:1	460	130	>6h
ESA 6025 A&B	Potting	Self-adhesive (tacky), high damping, low extractibles	Blue	1:1	1 300	280	20 min
ESA 6110 A&B	Potting	Optically clear, shock absorption, tacky	Optically clear	1:1	1 200	250	50 min
ESA 6110 QC A&B	Potting	Optically clear, shock absorption, tacky	Optically clear	1:1	1 200	250	5 min
ESA 6120 QC A&B	Potting	Low viscosity, thermal resistance	Clear	1:1	200	270	20 min

BLUESIL™ ESA RTV-2 Properties

PRODUCTS	APPLICATION	DESCRIPTION	COLOR	RATIO	VISCOSITY (MPA.S)	SHORE A HARDNESS	TENSILE STRENGTH (MpA)	ELONGATION AT BREAK (%)
ESA 7242 A&B	Potting	UL94 V0	Dark grey	1:1	2 600	50	2,9	140
ESA 7242 QC A&B	Potting	UL94 V0	Black	1:1	3 000	53	2,5	135
ESA 7250 A&B	Potting	Optically clear UL94 HB	Optically clear	10:1	4 000	52	6,2	115
ESA 7255 50 A&B	Potting	Optically clear, adhesion on plastic, metal	Transparent	10:1	2 000	30	2,1	
ESA 7256 A&B	Potting	Clear, low temperature curing	Clear to Light Straw	10:1	4 200	43	6,9	119
ESA 7258 A&B	Potting	High durometer	Dark grey	1:1	910	67	2,7	44

CURING CONDITIONS	THERMAL CONDUCTIVITY (W/M.K)	MAX SERVICE TEMPERATURE (°C)	SHELF LIFE	DIELECTRIC STRENGTH (IEC 60243), kV/mm	DIELECTRIC CONSTANT AT 1 kHz (IEC 60250)	DIELECTRIC DISSIPATION FACTOR AT 1 KHZ (IEC 60250)	VOLUME RESISTIVITY (IEC 60093), .CM
60 min at 120°C	0,18		12 months				
24h at 23°C or 60min at 70°C	0,19	150	12 months	9,9	2,23	0,0002	5,24x10^14
4h at 23°C or 90min at 80°C	0,15	150	12 months	9,6	6,4	0,0005	2,7x10^16
3h at 23°C	0,15	150	12 months		6,3	0,002	2,1x10^14
30 min at 23°C	0,15		12 months		6,3	0,002	2,1x10^14
30 min at 120°C	0,15	150	12 months	9,5	6,6	0,002	1,5x10^16

POT LIFE	CURING CONDITIONS	THERMAL CONDUCTIVITY (W/m.K)	MAX SERVICE TEMPERATURE (°C)	SHELF LIFE	DIELECTRIC STRENGTH (IEC 60243), kV/mm,	DIELECTRIC CONSTANT AT 1 KHZ (IEC 60250)	DIELECTRIC CONSTANT AT 1 KHZ (IEC 60250)	VOLUME RESISTIVITY (IEC 60093), .CMA
60 min	30min at 150°C	0,43	250	12 months	18,6	3,05 at 100KHz	0,004 at 100KHz	8,24x10^14
8 min	30min at 150°C	0,43	250	12 months	16,5	2,95 at 100KHz	0,001 at 100KHz	7.1x10^14
4 h	1h at 150°C	0,16	200	24 months	16,5	2,7	0,003	1x10^15
8 h	1h at 150°C	0,16	200	12 months	20,3			
3 h	35 min at 100°C	0,18	200	12 months	20,3	2,72 at 100KHz	0,0009 at 100KHz	1,03x10^16
5 h	90 min at 100°C	0,41	200	12 months	18,4	3,17 at 100KHz	0,002 at 100KHz	7,42x10^14

BLUESIL™ ESA Applications

	POTTING AND ENCAPSULATION					
PRODUCTS	LED LIGHTING (DEVICES)	ACTIVATOR	SENSORS	CPU	PCB	CONNECTORS
ESA 6025 A&B		•	•	•		•
ESA 6110 A&B	•	•	•			
ESA 6110 QC A&B	•	•	•			
ESA 6016 A&B		•	•	•		•
ESA 6120 QC A&B		•	•			
ESA 6010 A&B		•	•	•		
ESA 7242		•	•	•		•
ESA 7242 QC		•	•	•		•
ESA 7250	•				•	
ESA 7255 50	•				•	
ESA 7256					•	•
ESA 7258		•	•	•		•

More info on Electronics brochure

Discover dedicated Silicones solutions for electric and hybrid vehicles.

Discover our high-performance range of advanced materials including gels, adhesives, foams, pastes, thermally conductive materials and rubber that meet the requirements of the joined applications.

For more info please consult our dedicated brochure for e-mobility : accelerate the transportation revolution with Electronic Silicone Solutions

Moreover, Elkem Silicones can design customized products that match your application specifications, no matter how innovative they are. We are proud to help our customers deliver their potential **with a personal touch**. Let's build the future together!

Key benefits

Excellent ageing stability (long term thermal & chemical stability)

Heat management From thermal insulation to conduction performance

Excellent electrical insulation

Weight reduction, specifically when using silicone foams

Flexible rheological properties for easy processing

Elkem
A Bluestar Company

Silicones

Delivering your potential

Elkem Silicones

Elkem Silicones is one of the world's leading fully integrated silicone manufacturers with applications and research laboratories, production sites and sales offices located around the globe.

At Elkem Silicones, we're more than just high quality silicone products and associated services. We are a team of professionals located around the globe ready to provide you with the service and performance you deserve with a personal touch.

From technical support to customized formulations and regulatory support, Elkem Silicones has the people in place when and where you need them. We are committed to help you deliver your potential because we care!

For detailed commercial contacts please visit our website : www.silicones.elkem.com

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