Silicones Solution
for domestic appliances

CAF® AXAD TECHNOLOGY

Bluestar Silicones has developed a specific range to respond to customer's requirements in terms of productivity in domestic appliances.

The CAF® AXAD Technology involves a two-components system curing at room temperature containing:

- An accelerator (part B) added to
- CAF® acetoxy (one component room temperature vulcanizing, part A)

CAF® AXAD Technology is the ideal solution permitting good performance & high productivity levels.

By reducing production time

- Curing in confined space, even in high thickness
- Possibility to handle assemblies after 30 minutes
- Possibility to increase productivity by heating (Infra-red radiations or air ovens from 70°C till 150°C)
- Easy to process (ratio A:B optimal with 9:1)
- The presence of B-part increases curing rate, captures acidity decreasing odour and protecting the environment

In a wide range of temperature

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

In the main following application

- Dish-washer
- Vitroceramic hobs:
  for sealing & bonding of hobs with visible or invisible gaskets
- Ovens, steam-ovens, pyrolysis ovens, microwaves ovens
- Maintenance industry

BENEFITS

These are the unique properties that make the best choice for optimal productivity & performance:

- **Increasing the cure rate**
- **High heat stability**
- **High mechanical properties**
- **High resistance to humid heat and some chemicals**
- **High adhesive strength**
- **Captures acidity to protect the work station environment**

Bluestar Silicones. Delivering Your Potential.

BLUESTAR SILICONES

Domestic appliances

CAF® AXAD TECHNOLOGY

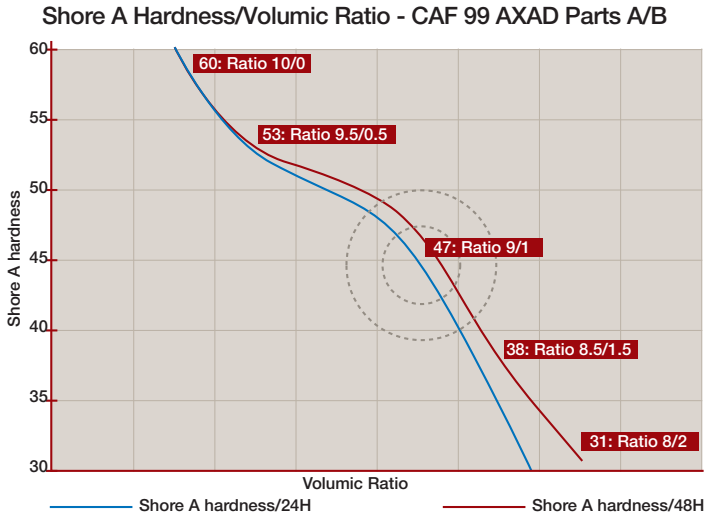
A wide range specially developed to meet industry's requirements for high productivity

		CAF® AXAD – BI COMPONENT		
		CAF 8 AXAD	CAF 33 AXAD	CAF 99 AXAD
	Product category	Flowing, Self adhesive	Thixotropic , Self-Adhesive	
	Main characteristics	High heat stability	Heat stability	High hardness
	Color	Brick-red	Black	Dark grey, Black
Properties before curing	Cure-type	Activated acetoxy		
	Specific gravity at 25°C (1)	1.14/1.43	1.04/1.17-1.43	1.11/1.17-1.43
	Viscosity (mPa.s) (2)	20000/-		
	Extrusion (g/min) (3)	–	50 / -	130 / -
	Flowability (4)		<5 mm	<5 mm
Cured compound	Skin formation time (min) (5)	4	4	3
Mechanical properties after curing	Shore Hardness for 6 mm Thick section (6)	36	25	51
	Modulus for 100% elongation (MPa) (7)	0.8	0.6	2.3
	Tensile Strength (MPa) (7)	1.6	2.4	4.0
	Elongation at break (%) (7)	180	500	200
	Lap Shear strength (MPa) (8)	1	2.1	2.7
	Type of failure Cohesive (CF)/Adhesive (AF)	CF 100%	CF 100%	CF 100%
Physical properties after curing	Lower service temperature	-65°C	-65°C	-70°C
	Maximum continuous service temperature, 1000H	250°C	180°C	250°C
	Maximum peak service temperature, 72H	300°C	250°C	275°C
Storage	Shelf life from the production date (months)	18	18	18

(1) ISO R1183, DIN 53479, NM703
(2) Brookfield NF T 76105, ASTM D445
(3) NM495 - 3 mm 3 bars
(4) Boeing S7502
(5) 23°C, 50% Relative humidity
(6) ISO R868, DIN53505, ASTMD2240, BS903 (A7), NF T 46003, NM471
(7) ISO 37 (H2), DIN 53504, ASTM D 412, BS903 (A2), NF T 46002 (H2), NM470
(8) On Aluminium AG3, without primer, 1mm thick joint, NM748

Volumic Ratio

Versatil capability of CAF® AXAD products allows ratio A/B from 8.8/1.2 up to 9.2/0.8



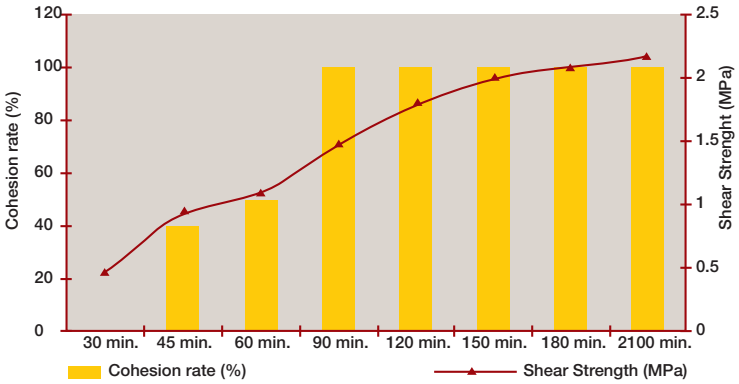
CAF® AXAD TECHNOLOGY

- High mechanical performance and heat Resistance
- Optimal productivity & performance
- Complete curing in confined environment in high section thickness (even in absence of atmospheric moisture)

	Setting time for 2 mm thickness (hours)	Cured thickness for 24 hours
Acetoxy	5 - 7	4 - 5 mm
Activated acetoxy	20 min.	Infinite

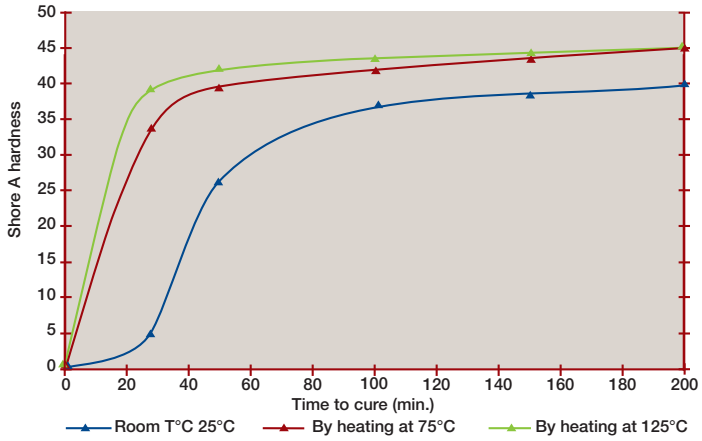
ADHESION PROPERTIES AS FUNCTION OF THE CURING TIME

CAF 99 AXAD at 23°C & RH50% Enamelled steel/Glass



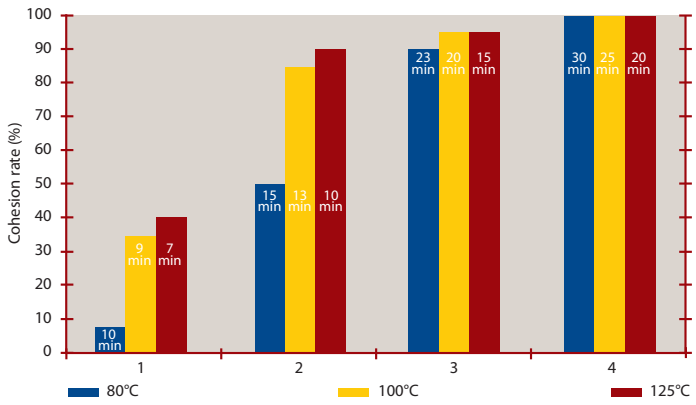
Curing time of 25-30 minutes at room temperature allows the assembled parts to be handled

CURE RATE OF CAF 99 AXAD



Complete curing in confined environment in high section thickness

ADHESIVE PROPERTIES AS A FUNCTION OF HEATING



Adhesion on various substrates

To guarantee adhesion properties in thermal ageing conditions, we recommend using a primer (adhesion promoter) on metal & plastic substrates:

	Primer	Primer 131	Primer PM820& 820 UVT *	Primer PM824	Primer 10073
Glass	Glass, enamel, ceramics	Without primer			
	Screen printed glass	•			
Metals	Aluminium	•			
	Stainless steel	•			
	Other metals	•			
Painted metals	polyester powder coated or fluorocarbonated resin based substrates				•
	Epoxy, PES painted steel		•	•	
Plastics	ABS		•		
	Polypropylene		•		
	PBT			•	
	Polyamide		•		
	Polycarbonate		•		
	Polymethyl methacrylate		•		
	PES		•		

PM820 UVT: adhesion promoter PM820 is available containing an UV tracer (UVT) to visualize areas where primer has been applied.

For other substrates & coatings or in the case of extreme heat & moisture measurements, the optimal adhesion could be achieved by using the appropriate primer.
For specific technical recommendations please contact your Sealing & Bonding Technical Customer Service Laboratory.
This information should not be used in Substitution of customers tests to ensure satisfactory results.

Processing

CAF® AXAD can be applied by a variety of methods ranging from manual dispensing to automatic dispensing units for cartridge, pail or drum packages with large productions runs, high productivity levels, partial or total automation integrated production line.

Innovation Partnership

Cooperation with automatic dispensing equipment Suppliers for installation and innovation.

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