



The Black Mamba® range, Faster Higher Green® revolutionary technology, is made of single component MS polymer adhesives which are reacting to the air moisture content. It allows jointing or sealing operations by offering an optimum water resistance and air tightness even under pressure.

FASTER-HG® Technology

The **FHG®** MS polymer range has exceptional characteristics in terms of speed. Indeed, at 20°C with 50% of relative moisture, the skin formation time is about 10 minutes only and their curing speed is 5 mm/24hours. The shrinkage is about 1%. Moreover, 100% of the active matter reacts during the curing speed. The optimum qualities of these products are obtained at room temperature between 5°C and 35°C.

F-HIGHER-G® Technology

FHG® adhesives have many amazing characteristics because they offer an high adherence combined with a high elongation which can go up to 400%. These qualities are essential to realize bonding which are able to resist to impacts, vibrations and peeling.

FHG® products resist to :

- Fire and smoke resistances. The products obtained the M1/F1 accreditations (according to the standards NF F 16-101 and STM-S 001).
- Temperatures > use slot between -40 to 140°C, without any loss of mechanical characteristics.
- Freshwater, salted water or demineralised water, including during a permanent immersion.
- U.V. without yellowing and without affecting mechanical resistances.
- Aggressive environments as the alkalines, the diluted acids, polar solvents, the oils, the humidity.

Last but not least, all the references of the **FHG®** range can be painted without any surface preparation.

FH-GREEN® Technology

Our MS polymers **FHG®** do not emit any smell during their curing speed and are solvent, phthalate, isocyanate and silicone free. They allow to adhere to several supports without primer*. Many bonding applications are feasible with:

- Glass
- Metal as aluminium, steel , and all types of alloy...
- Technical plastics as ABS, acrylic, PVC, polycarbonate....
- Laminated glass/resin ; polyester (including DCPD), vinyl ester, epoxy, with or without gel coat as well as SMC/BMC and pre-impregnated epoxy.
- Tender or stiff woods like teak.

* Our laboratory is able to realize for each new material some feasibility studies.



**MS60 Black Mamba FHG®
Construction 02/05/2013**

Characteristics

MS 60 BLACK MAMBA FHG® CONSTRUCTION is easy to apply, bond on every surface, high curing speed very strong bonding ideal for construction application.

Concerning the jointing operations **MS 60 BLACK MAMBA FHG® CONSTRUCTION** must be apply in 35 minutes (at 20°C/50% R.H.) with a spatula.

Concerning bonding operation, the substrates have to be assembled in 45 minutes (at 20°C/50% R.H.) after applying **MS 60 BLACK MAMBA FHG® CONSTRUCTION**.

MS 60 BLACK MAMBA FHG® CONSTRUCTION on all materials without primer and surface preparation if they are dust and grease free.

Liquid product properties

<u>Appearance:</u>	white
<u>Specific gravity (g/cm³ à 20°C) :</u>	1.54-1.58
<u>Viscosity* Pa.s @25°C):</u>	170 ± 40
<u>Yield point *(Pa) :</u>	630-650

Adhesive physical properties

(*) : Rheometer

Hardness (Shore A) :	60
% elongation * :	380
Tensile strength at break (MPa) * :	2.4

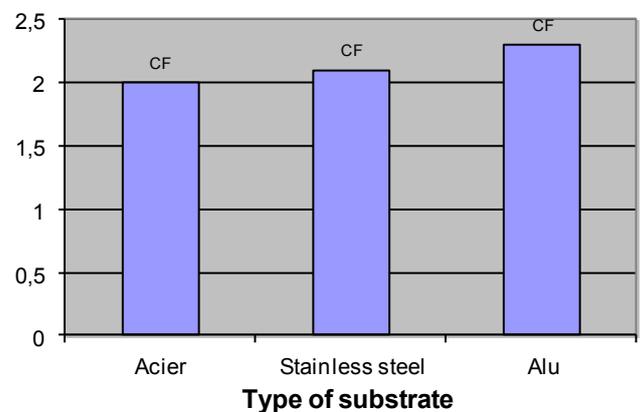
*: with the norm ISO 527-1A.

1MPa = 145,0 psi

Kinetics of reaction and assembly mechanical properties

Skin formation time (min)	35-45
Curing speed (mm/24H)	5

Lap Shear Strength (MPa)*



* inspired by the norm NF EN 1465

CF : systematic Cohesive Failure.

1MPa = 145,0 psi

Temperature resistance

Temperature slot : -40°C / + 150 °C up to 200°C (at top temperature).

No significant change of colour and mechanical properties after 3000H of UV ageing test. Fit to pigmented plastics without any migration of pigments in the adhesive joint.

*Data is typical and not to be used for specification purposes.

Surface preparation

Use **AEC T700** to remove grease, loose contamination or poorly adhering oxides from metal surfaces. Most plastics require a simple cleaning before bonding. Some may require abrading for best performance.



AEC POLYMERS
Stronger, We bond!

Technical Data sheet

MS60 Black Mamba FHG® Construction 02/05/2013

Packaging

MS 60 BLACK MAMBA FHG® CONSTRUCTION is available in 600mL and 5kg bags, 290mL cartridges and 200L drums.

Precautions

Before using this or any **AEC POLYMERS** product, refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling instructions.

Storage

For maximum shelf life, keep in a cool and dry area; avoid direct contact with water and sunlight.

Shelf life is one year in unopened original packaging.

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