



# AZTECA

## TECNICAL PRODUCT SHEET

MODEL	AKILA / GALAXY ( BF REF )	
SIZE	NOMINAL SIZE: 12X24 + 24X24+24X48	
REQUIREMENTS	X	PORCELAIN
		WHITE BODY
		RED BODY
DIMENSIONS AND SURFACE QUALITY	X	RECTIFIED MATT
		RECTIFIED POLISHED OR SEMIPOLISHED
		RECTIFIED SOFT POLISHED
		RECTIFIED BRIGHT
		BRIGHT ( NO RECTIFIED )
		MATT( NO RECTIFIED )

PROPIEDADES	NORMA UNE-EN 14411		AZTECA CERÁMICA		TEST
DIMENSIONS AND SURFACE QUALITY	mm	%	mm	%	
<b>LENGTH (L) AND WIDTH (W)</b> The deviation of the average size for each tile (2 or 4 sides) from the work size (W)	± 1.8 ± 2.0	± 0.60 %	± 0.3	± 0.03 % / ± 0.05 %	ISO 10545-2
<b>THICKNESS</b> The deviation of the average thickness of each tile from the work size thickness.	± 0.5	± 5 %	± 0.2	± 2.1 %	ISO 10545-2
<b>STRAIGHTNESS OF SIDES (FACIAL SIDES)</b> The maximum deviation from straightness, in mm, related to the corresponding work sizes.	±1.5	± 0.50 %	± 0.5	± 0.06 % / ± 0.11 %	ISO 10545-2
<b>RECTANGULARITY</b> The maximum deviation from rectangularity, in mm, related to the corresponding work sizes.	±2.0	± 0.50 %	± 0.5	± 0.06 % / ± 0.11 %	ISO 10545-2
<b>SURFACE FLATNESS</b> The maximum deviation from flatness in mm: A) Centre curvature, related to diagonal calculated from the work sizes. B) Edge curvature, related to the corresponding work sizes. C) Warpage, related to diagonal calculated from the work sizes	±2.0	± 0.50 %	+1.2 / -0.5	+ 0.18 % / - 0.08 %	ISO 10545-2
	±2.0	± 0.50 %	+1.2 / -0.5 +1.0 / -0.5	+ 0.39 % / - 0.17 % + 0.19 % / - 0.08 %	
	±2.0	± 0.50 %	+1.0 / -0.5	+ 0.15 % / - 0.08 %	

RECOMMENDED USE		
Glazed wall tiles. Not recommended for floors.	A	
For light transit areas with soft soled footwear, such as private bathrooms and bedrooms without direct access to the outside. Any abrasion should be avoided.	B	
For medium transit areas with soft soled or normal footwear, for example, rooms in the living areas of a home with the exception of entrances, and other rooms that may have a lot of traffic.	C	
For medium transit areas with normal footwear. Recommended for all areas of private home ( kitchens, entrances, corridors and terraces), as well as offices, consulting rooms and other places of similar use. Medium resistance to abrasion.	D	X
For areas of regular transit, such as commercial zones, hotels, exhibition rooms and shops. Fairly high resistance to abrasion.	E	X
HIGH TRANSIT, floor tiles especially designed for areas of heavy transit. Highly resistant to wear.		



[www.azteca.es](http://www.azteca.es)

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Inscrito en el Registro Mercantil de Castellón en 8-1-97. Tomo 858. Libro 425. Sección G. Folio 22. Hoja CS-11643. Inscripción 1ª. NIF. B-12438941



GlobalEPD  
A VERIFIED ENVIRONMENTAL DECLARATION



## TECNICAL PRODUCT SHEET

MANUFACTURED PROCESS	Dry-pressed single-fired ceramic tile.	UNE EN 14411
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SURFACE QUALITY	A minimum of 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles.	ISO 10545-2
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PHYSICAL PROPERTIES		
WATER ABSORPTION, percent by mass.	$\leq 0.5\%$	ISO 10545-3
BREAKING STRENGTH, in N	$\geq 1300$	ISO 10545-4
MODULUS OF RUPTURE, in N/mm <sup>2</sup>	$\geq 35$	ISO 10545-4
ABRASION RESISTANCE: Resistance to surface abrasion of glazed tiles intended for use on floors.	PEI IV WHITE + PEI 3 OTHER COLORS	ISO 10545-7
DCOF	$\geq 0.40$	ANSI A137.1:2012
FROST RESISTANCE	Required	ISO 10545-12

PROPIEDADES QUÍMICAS		
RESISTANCE TO CHEMICALS: Resistance to low concentrations of acids and alkalis. Resistance to high concentrations of acids and alkalis. Resistance to domestic cleaning products. Resistance to household chemicals and swimming pool salts: glazed tiles	Minimum Type GLB Minimum Type GHB Minimum Type GA  Minimum Type GA	ISO 10545-13
RESISTANCE TO STAINING: Glazed tiles	Minimum Type 3	ISO 10545-14

## TILING ADVICES: INSTALLATION &amp; MAINTENANCE

## RECOMMENDATION

You should not use colour joints containing smoke black (micronized coal) or other colours that can make it difficult to clean coated surfaces.

## USE AND MAINTENANCE

Due to their properties, ceramic tiles are extremely easy to use and need very low maintenance as they are so easy to clean.

When selecting tiles, it is important to take note of the use recommended by the manufacturer, who will classify the material according to its physical and chemical properties. This classification is valid as long as the tiles are used under normal conditions which include: avoiding scratching tiles or blows to the pieces and not exposing the pieces to products which will deteriorate their surface (strong acids such as hydrofluoric acid). It is advisable to protect floors from abrasive materials, using some elements for the cleaning of shoe soles, like a doormat.

When tiling is completed, any traces of cement can be successfully removed with a diluted acid solution (for example vinegar). However, an acid wash of any type should not be carried out on newly laid tiles as the acid will react with the cement.

After installation and initial cleaning, it is important to protect the area with cardboard or thick plastic film, in order to avoid the tiles to be damaged by the rest of works to be made until construction is finished

In general, maintenance consists in a periodical cleaning of the tiles with either water or a mild detergent diluted in water. This should be enough to return the tiles to their original conditions.

Occasionally, some colouring products can cause stains or incrustations which cannot be removed with normal cleaning. In these cases, specific cleaning agents and procedures should be used according to the type of tile and the nature of the stain. Damage to tiles is usually caused by over-aggressive cleaning products or products which are not suited to the type of tile. As a general rule, before using a cleaning product over the whole surface, carry out a test on a small, hidden area.

The following table shows some of the most frequent stain types, and the recommended products for their cleaning. Remember to always test a small patch of floor with the cleaning product before proceeding to larger, more visible areas.

DIRT TYPE	PRODUCT	SUPPLIER
Rust or lime stains, remains of cement, etc.	DETERDEK	FILA
Organic stains (food, drink, grease, etc), remains of Epoxi joints.	PS/87	FILA
Candlewax stains, traces of adhesive tape, tar, etc.	FILASOLV	FILA

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**TILING ADVICES: INSTALLATION & MAINTENANCE**

Ceramics have undergone a rapid evolution in the last few years. This has been reflected in as much as the ceramic tiles (low porosities, large formats...) as in the areas where they are put to use (large shopping centres, facades, refrigerating chambers...)

To optimise the planning of tiling operations one must first study the nature, condition and behaviour of the surface onto which the tiles are to be applied, the fixing system and adhering material, and lastly, the grouting and finishing materials for floor and wall tiles.

**THE SUPPORT SURFACE AND ITS CHARACTERISTICS**

There are many reasons for which a surface may be considered inadequate for applying certain types of tiles with certain types of adhesives and with certain installation techniques.

To achieve the final goal, which is a high quality and durable covering, it is necessary to begin with a surface which is prepared in the best possible way prior to applying the adhesive layer.

**CERAMIC BRICK SUPPORT SURFACES:**

This type of surface is ideal for ceramic coverings. It is very absorbent and therefore the ambient temperature and humidity must be controlled.

A cement coating of sand mixed with Portland cement is recommended, as the surface is normally not level.

**CONCRETE SLAB SUPPORT SURFACES:**

When laying tiles onto this type of surface, it is recommended to first make a careful analysis of the surface, carrying out any necessary modifications to prepare the surface for the tiles. As a general rule, several layers, each having its own function, will be needed (insulating, levelling,...)

It is highly recommended that, in order to avoid the negative effects brought about by a lack of flexibility or dimensional stability, the tile should be isolated from the surface with an isolating layer. This could be a sand base, a polyethylene membrane...

Subsequently, it is a good idea to apply a levelling layer to correct any irregularities in the flatness of the surface and thus conveniently apply the adhering material.

**PLASTER WALLBOARD SUPPORT SURFACES:**

In order to adhere ceramic tiles to plaster wallboards, one must remember that the weight of the tile layer must not be excessive (the use of tiles larger than 30x30cm is not recommended and adhesives should be applied in an evenly applied thin layer).

It is essential to ensure that the panels which are to receive the ceramic tiles are correctly reinforced and attached so they do not warp in any way or become deformed during installation, or afterwards.

In areas of intermittent humidity, bathrooms and kitchens, the support surface should be waterproofed, for which Type C2 adhesives are recommended.

**PLASTER SUPPORT SURFACES:**

Plaster surfaces must be carefully inspected before proceeding with any tiling work. It is essential that the fixing material bonds correctly to the plaster, so it is highly recommended to apply a sealant in order to close the pores, and use Type C2 adhesives when applying the tiles. Check the compatibility of the plaster adhesive and the primer.

**OTHER SUPPORT SURFACES (Ceramic, terrazzo or natural stone, wood, metal):**

There are certain surfaces which need maximum preparation prior tiling.

- **Ceramic support surfaces:** when applying ceramics in restoration work, they need to be thoroughly cleaned with specialized products to remove all traces of grease and dirt which have adhered to the surface over time. It is recommended to consult the adhesive materials manufacturers to see which procedure is best to follow, and the best products to utilize. Type C2 adhesives are recommended.

- **Terrazzo or natural stone support surfaces:** the surface must be thoroughly cleaned before laying any tiles; all traces of dust must be removed to ensure

optimum adhesion and avoid any posterior detaching. If the natural stone has not been smoothed and has a rough surface, it must be levelled and smoothed with a cement-rich mortar. Recommended fixing materials for this type of surface are adhesive mortars with a high polymeric resin content and reaction resins (epoxy or polyurethane).

- **Wood support surfaces:** on wood surfaces it is a good idea to apply a waterproofing sealant. The recommended adhesive material is a reaction resin (epoxy or polyurethane).

- **Metal support surfaces:** the surface must be clean and in good condition, free of any rust. The recommended adhesive materials are reaction resins (epoxy or polyurethane).

- **Fixing glass tiles:** to correctly apply the glass series, you need a professional polyurethane two-part adhesive, which offers elasticity and no vertical slippage. We recommend SUPERFLEX.

**THE INSTALLATION METHOD:**

To determine the correct setting system, one must take into account the type and size of the tile, whether it is for interior or exterior applications, and the previously mentioned support surface considerations.

**Installation utilizing a thin adhesive layer:**

This is the most current installation system, adapted to modern ceramic materials and the wide variety of possible support surfaces. A preliminary layer is usually applied to plumb and level the support surface, whether it may be a coating on the walls, or a mortar base on the floors.

This system is adequate for all types of tiles, especially low-porosity tiles, and is furthermore compatible with all types of support surfaces. There are adhesive products adapted to each type of setting system, and the workability time is high.

**RECOMMENDED CUTS:**

We recommend the use of circular tools or water jet cutters in order to cut stoneware material and to obtain a clean and suitable cut.

## TECNICAL PRODUCT SHEET

### TILING ADVICES: INSTALLATION & MAINTENANCE

#### ADHESIVE MATERIALS:

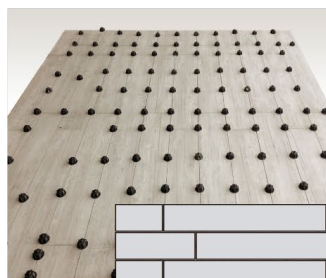
For optimum results, it is vital to select an adhesive which is appropriate (these are known as tile setting adhesives). There is a wide range of such products in the marketplace, ranging from cement mortar to resinous adhesives of many different compositions. It is advisable to consult experts in order to advise us as to which is the ideal adhesive for each AZTECA tile supplied.

The following is a brief description of the different types of adhesives, together with their corresponding European Standard identification code (UNE-EN-12004):

TYPE	NAME	DESCRIPTION
C1	CEMENTITIOUS ADHESIVE	Incorporates organic components (resins), which improve its elasticity and water retention properties.
C2	IMPROVED ADHESIVE	Mortars with a high content of polymeric latex, possessing great adherence and elasticity. They come in one or two components, being mixed with water or directly with the latex.
D	DISPERSION ADHESIVE	Made of water-based polymeric powder, sand and organic additive. Pre-mixed and ready-to-use.
R	REACTION RESIN ADHESIVE	Made of reaction resins (epoxy or polyurethane), a hardening agent and mineral charges (silica sand). Generally it appears in two components, hardening the mixture of both via chemical reaction.

#### COMPATIBILITY BETWEEN ADHESIVES AND TYPE PRODUCT

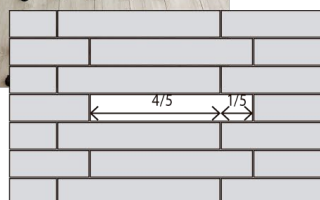
ADHESIVE	WALL TILE	FLOOR TILE	PORCELAIN TILE
C1	X	X	---
C2	X	X	X
D	X	X	---
R	X	X	X



#### SPECIAL ARRANGEMENT FOR LARGE FORMATS

For large (largest side of 60 cm.) and/or rectangular formats, we recommend the use of levelled systems such as bells or wedges in order to guarantee a proper arrangement.

The self-levelling system has some advantages such as saving time in arranging the pieces or the self-levelling among pieces in order to obtain a totally flat arrangement.



When laying rectangular formats discontinuously, never do so in the centre of the piece.

In order to maintain the aesthetic appearance and avoid difficulties in installation, we recommend that discontinuous laying does not exceed 20% of the side to which it is applied.

#### SPECIAL ARRANGEMENT FOR DETONED SERIES

In order to obtain an excellent aesthetic finish regarding design and to appreciate all their qualities, we recommend you mix floor tiles from different boxes before starting to arrange them.

#### WALL AND FLOOR TILE JOINTS

##### GROUT JOINTS:

A tile joint is the separation between each ceramic tile and those adjacent. This gap may be functional or aesthetic, or used to compensate for any irregularities between the tiles' sizes. With regards to these joints, the following considerations should be taken into account:

- Generally, a grout joint of not less than 1.5mm is recommended (including rectified products).
- For products with an irregular edge, a grout joint of not less than 3mm should be used.
- Concerning modularity (installing tiles together which have various formats) a grout joint of 5mm is recommended for correct modularity.

##### EXPANSION JOINTS:

These are areas of unavoidable interruption in the ceramic tiles in order to accommodate possible dimensional variations.

They are classified as follows:

- Structural joints, which are those pertaining to the building structure. In this case, the joint must be left in the tiles coinciding with the joints in the structure or walls.
- Perimeter joints, those which should be left at the edges of tiled surfaces with other areas such as walls, pillars, steps, etc., to avoid the build-up of structural pressure. These should be continuous and greater than 5mm. They can be hidden by the skirting pieces, and must be filled with an elastic material up to the structural support.
- Partition joints, used to divide large areas covered with tiles, to avoid accumulations of contractions and dilatations. The maximum area that should be covered without these joints is 60m<sup>2</sup> for interior surfaces and half the area in exteriors. Partition joints should be no narrower than 5mm.

TILING ADVICES: INSTALLATION & MAINTENANCE

**GROUTING AND GROUTING MATERIALS.**

**GROUTING:**

It is not recommended to start grouting before the adhesive has completely hardened. A premature manipulation could disturb the positioning and adherence of the tiles.

Grouting is done with a rubber spatula or grouting trowel. The material should be pressed with back and forth movements to ensure that the joints are completely filled.

**GROUTING MATERIAL:**

Wide ranges of grouting materials for ceramic tiles exist, allowing selection of the most appropriate, depending on the type of tile and environment. Most of these materials contain cement and other components which have specific functions (whitening, mould resistance, smoothness of texture, hardness, flexibility...)

There are also other materials such as epoxies, organic materials and silicon-based, which do not contain cements, and far surpasses cement-based products when it comes to certain functions. Greater care and skill will be needed when using these products.

**Cement-based mortars:**

Containing hydraulic binders, mineral fillers and organic additives, these need only be mixed with water or another liquid just before their application. They may contain colouring agents in order to obtain colour variations.

These mortars are divided into "normal" or "improved" categories according to their attributes (reduced water absorption, high scratch-resistance...)

They are prepared by adding the amount of water indicated by the manufacturer to obtain a sufficiently thick and homogeneous paste. There are products on the market for both thick and thin joints.

They can be applied to interior and exterior wall and floor coverings. They are compatible with all tile types.

These grouts are not recommended for areas which undergo frequent cleaning with aggressive products, nor in industrial food plants (kitchens, slaughter houses...) or hygienic environments (operating rooms...).

**Reactive resin mortars:**

Made from synthetic resins (generally epoxies), organic additives and mineral fillers, these grouts harden caused by a chemical reaction. They are available in one or more components. They may contain pigments to provide colouring.

The main characteristics of these products include their resistance to chemical products and bacteria, their high level of adherence, very good resistance to humidity, and excellent abrasion resistance.

Their area of usage is that for areas where hygiene, chemical resistance, high scratch-resistance and excellent resistance to humidity are paramount.

TYPE	NAME
CG1	Material for normal cement joints
CG2	Material for improved cement joints
RG	Material for reaction resin joints