



## Novojunta® Metallic Aluminum



Novojunta® Metallic is a solution for expansion joints consisting in two aluminum profiles with a central body made of high quality EPDM rubber. The excellent properties of this EPDM rubber, allow Novojunta® Metallic Aluminum to absorb expansion and contraction movements proceeding from floorings and avoid the apparition of several pathologies. It is available in a wide range of heights and different widths. It is delivered with protective film on its visible side to avoid damage during handling and transport.

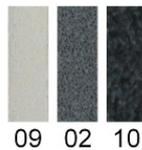
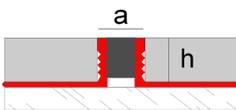
### General Features

Material: Aluminum + EPDM rubber

Lenght: 8ft2in / 2,5 m.l.

Packaging: 10 u./box or 20 u./box

Color:



Dimensions:

<b>h:</b>	6 1/4"	8 5/16"	10 3/8"	12 <sup>5</sup> 1/2"	15 9/16"	17 <sup>5</sup> 11/16"	20 3/4"	22 <sup>5</sup> 7/8"	25 1"	27 <sup>5</sup> 11/16"	30 1 3/16"	41* 1 5/8"	51* 2"	125* 4 15/16"
<b>a:</b>	8 5/16"											11 7/16"		
<b>M.A.:</b>	+1/-2 +0.039" / -0.079"											+1.2 / -3.5 +0.047" / -0.138"		
<b>T.M.A.:</b>	3 / 0.125"											4.7 / 0.187"		

M.A.: Movement allowed. T.M.A: Total movement allowed.

### Applications

Novojunta® Metallic aluminum is a solution for expansion joints whose main function is to absorb expansion and contraction movements proceeding from floorings or tiled walls to avoid the apparition of pathologies. It can be installed vertically and horizontally in floorings or tiled walls.

### Technical Features and Tests

Fire resistance	M4	UNE 23-727-90		
Abrasion resistance	Very good			
Working temperature	-40°C/+80°C			
Water absorption	< 5	ASTM D1056 - 00	AIMPLAS	
Ozone resistant	Yes			
Free of CFC				

### Materials

**Aluminum** The anchoring wings of Novojunta® Metallic Aluminum consist in two profiles made by aluminum extrusion in natural finish.

Aluminum is a material with excellent chemical and physical-mechanical properties. It is lightweight, tough, ductile, malleable and highly durable.

**EPDM** The central body of Novojunta® Metallic Aluminum is made of high quality EPDM rubber. EPDM is an elastomer polymer with excellent mechanical properties. It has good resistance to abrasion, wear and impact, is a good insulator, and resists weathering, common chemicals and has a wide working temperature range.

Its excellent compression set is the main feature in absorbing the deformations and geometric variations of constructive elements.

### Tips of installation

Emac®, in his awareness for the correct execution of the ceramic systems, took part in the committee for the elaboration of the UNE 138002: 2017 standard "General rules for the execution of ceramic tile systems by adhesion". In that UNE standard the recommendations of installation for expansion joints were defined as follow:

Installation	Separation distance / Area	Joint width (mm)
<i>Linear expansion joints</i>		
<i>Outdoor walls</i>	Each 3 - 4 ml max. Regular areas max. 16 m <sup>2</sup>	≥ 8 mm
<i>Outdoor floors</i>	Each 2,5 - 5 ml max. Regular areas max. 16 m <sup>2</sup>	
<i>Indoor floors</i>	Respect open contraction joints Each 8 ml maximum Regular areas max. 40 m <sup>2</sup>	≥ 5 mm
<i>Singular points</i>	Door treshold Floor changes	≥ 8 mm
<i>Perimeter expansion joints</i>		
<i>Indoor walls</i>	Perimeter joints Wall / Ceiling Wall / Wall	≥ 5 mm ≥ 8 mm
<i>Outdoor walls</i>	Indoor / outdoor edges	≥ 8 mm
<i>Indoor floors</i>	Perimeter joints and encounters with elements	
<i>Outdoor floors</i>	Perimeter joints and encounters with elements	
<i>Singular points</i>	Encounter joints with joinery	≥ 5 mm

These recommendations are the minimum dimensions to take into account. The particularities of each project could make necessary to place the joints at less distance. The expansion joints should be planned since the project phase. The correct design and dimensionement of the expansion joints, together with an adequate choice of materials and a correct installation execution, will help to prevent from the apparition of pathologies.

**Calculation of thermal variation**

Novojunta® Metallic aluminum is available in different heights and widths so each model will have different performance and will support different thermal variation.

For example, we'll take the example of Novojunta® Metallic h:10 mm. This profile has a visible side of 8 mm. and absorbs a total movement of 3 m. (+1 / -2 mm.)

a	Expansion/contraction movements	Total movement
5/16" - 8 mm.	+0.039" / -0.079" // +1 / -2 mm.	0.12 / 3 mm.

<sup>1</sup> Thermal variation calculated considering an outdoor installation with coefficient of thermal expansion 0.007mm\*°C/m. with the joints placed to a maximum distance of 16.40ft (5 l.m.).

<sup>1</sup> The considered installation allows an expansion movement equal to an increase of 134°F (57°C) counting from the temperature of installation and a contraction equal to -84°F(-29°C) counting from the temperature of installation.

**Total thermal variation: 187°F / 86°C**

<sup>1</sup> Thermal variation calculated considering an outdoor installation with coefficient of thermal expansion 0.007mm\*°C/m. with the joints placed to a maximum distance of 26.24ft (8 l.m.).

<sup>1</sup> The considered installation allows an expansion movement equal to an increase of 97°F (36°C) counting from the temperature of installation and a contraction equal to -64°F(-18°C) counting from the temperature of installation.

**Total thermal variation: 129°F / 54°C**

The correct calculation of this is highly important to distribute and dimension the expansion joints in a correct way. From our Technical Department, as specialists in expansion joints, we offer advice for the calculation of the expansion joints of your project with no compromise.

Please, contact us in [tecnico@emac.es](mailto:tecnico@emac.es) and we'll offer you a customized solution depending on the features of your project.

**Installation**



To see the video, capture this image with your mobile phone (QR code reader software is necessary) or click on it.

1. Spread a big amount of thin-set mortar on the surface to be tiled.
2. Then, place the profile and press it so the thin-set mortar could pass through the holes of the anchoring wing.
3. Place one tile over the anchoring wing and press it to get an optimal joint between the thin-set mortar and the profile.
4. Repeat the last step placing tiles along the profile (both sides) until the installation is finished. Before it cures, hit softly with a rubber hammer to align the profile with the tiles.
5. Finally, clean the leftover material, remove the protective film and let dry.

\* If you're going to polish the flooring, install this profile slightly below the tile to avoid possible damage.



### Cleaning and maintenance

The cleaning must be done periodically with a soft cloth. If you use a neutral liquid cleaner, you must rinse the profile with cold water and dry to remove excess moisture. If dirtiness persists, clean the profile with a solution with clean water and detergent or neutral soap 5%, brushing with a cloth that has no particles that could scratch the finish. Ensure the lacquered surface is totally cold (maximum 20°C) before the cleaning.

Steel wool, abrasive cleaners, souring products as well as strong acids (hydrochloric and perchloric), strong bases (caustic soda or ammonia) or carbonated solutions are not recommended. Citric acid is neither recommended because it dissolves the protective layer of the surface of aluminium. Waxes, petrolatum, lanolin or similar substances are not appropriate. Solvents containing haloalkanes (hydrofluoroether and chlorinated solvents) and curing accelerators containing chlorides should not be used (use special accelerators free of chlorides)

### Technical Information

You can find out more information about the technical features of Emac®'s products by downloading their Technical Files in [www.emac.es](http://www.emac.es).

If you have any query, please contact our Technical Department in [tecnico@emac.es](mailto:tecnico@emac.es).



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