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## European Technical Assessment

**ETA 21/0760  
of 04/09/2021**

### General Part

#### Technical Assessment Body issuing the European Technical Assessment:

Technical and Test Institute for Construction Prague

<b>Trade name of the construction products:</b>	<b>MM 126 A101</b> - glass fibre meshes for reinforcement of cement based renderings
<b>Product family to which the construction product belongs:</b>	Product area code: 4 Thermal insulation products. Composite insulating kits/systems
<b>Manufacturer:</b>	<b>SAINT-GOBAIN ADFORS CZ s.r.o.</b> 106 Sokolovská 570 01 Litomyšl Czech Republic
<b>Manufacturing plant(s):</b>	<b>SAINT-GOBAIN ADFORS CZ s.r.o.</b> 106 Sokolovská 570 01 Litomyšl Czech Republic
<b>This European Technical Assessment contains:</b>	5 pages
<b>This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:</b>	<b>EAD 040016-01-0404</b> Glass fibre mesh for reinforcement of cementitious or cement- based renderings

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## *Specific part*

### **1. Technical description of the product**

#### **1.1 General**

Triaxial glass fibre mesh for reinforcement of cement based renderings **MM 126 A101** is **laid fabric** made of glass fibre strands. According to the manufacturer technical specification the type of the glass of fibre mesh is **E-glass**. To provide resistance to alkali conditions, they are coated by an organic layer. The distance of strands is at least 3 mm so that the reinforced rendering or mortar sufficiently penetrates the meshes.

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions or (in absence of such instructions) according to the usual practice of the building professionals.

### **2. Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)**

The product is used as reinforcement of cementitious base coats (e.g. of ETICS) or cement-based and/or lime-cement-based core part of wall rendering/plastering.. Nominal thickness of reinforced layer is usually of 2 mm up to 15 mm. The reinforcement shall be embedded into a fresh mortar and sufficiently covered. The maximum particle size of aggregate used in rendering in relation to the mesh opening has to be taken into account to prevent the damage of the mesh during application and its action as a separation layer in renderings (base coats).

The reinforcement prevents the surface of hardened rendering from cracking, caused by shrinkage.

The assessment methods included or referred to in EAD 040016-01-0404 have been written based on the manufacturer's request to take into account a working life of the glass fibre mesh for reinforcement of cement based renderings for the intended use of 25 years when installed in the works (provided that the glass fibre mesh for reinforcement of cement based renderings is subject to appropriate installation). These provisions are based upon the current state of the art and the available knowledge and experience.

The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works<sup>1</sup>.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee but are regarded only as a means for expressing the expected economically reasonable working life of the product.

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<sup>1</sup> The real working life of a product incorporated in a specific works depends on the environmental conditions to which that works is subject, as well as on the particular conditions of the design, execution, use and maintenance of that works. Therefore, it cannot be excluded that in certain cases the real working life of the product may also be shorter than the working life referred to above.

### 3. Performance of the product and references to the methods used for its assessment

The essential characteristics of glass fibre meshes for reinforcement of cement based renderings **MM 126 A101** and methods of verification were carried out in compliance with the EAD 040016-01-0404: Glass fibre meshes for reinforcement of cementitious or cement-based renderings. Expression of product performance is stated in Table No. 1.

Table No. 1: glass fibre mesh **MM 126 A101**

No.	Essential characteristic and method of verification and assessment	Expression of product performance <b>MM 126 A101</b>	
<b>Safety in case of fire (BWR 2)</b>			
1	<b>Reaction to fire</b> (EAD 040016-01-0404, Cl. 2.2.1, Commission Delegated Regulation (EU) 2016/364)	<b>No performance assessed</b>	
2	<b>Organic content and ash content</b> (EAD 040016-01-0404, Cl. 2.2.2)	<b>Ash content</b> (average value)	<b>Organic content</b> (average value)
		<b>81.25 %</b>	<b>18.75 %</b>
3	<b>Gross heat of combustion</b> (EAD 040016-01-0404, Cl. 2.2.3)	<b>Heat combustion <math>Q_{PCS}</math> [MJ/kg]</b>	
		<b>8,74</b>	
		<b>Heat combustion <math>Q_{PCS}</math> [MJ/m<sup>2</sup>]</b>	
		<b>1,38</b>	
<b>Safety and accessibility in use (BWR 4)</b>			
4	<b>Mesh size</b> (EAD 040016-01-0404, Cl. 2.2.5.2)	<b>Average mesh size</b> ( <i>warp direction x weft direction</i> )	<b>7.1 x 7.2 x 7.2 mm</b>
		<b>Average mesh opening</b> ( <i>warp direction x weft direction</i> )	<b>5.6 x 6.1 x 6.3 mm</b>
		<b>Coverage ratio [%]</b>	<b>30.4 %</b>
5	<b>Weaving accuracy</b> (EAD 040016-00-0404, Cl. 2.2.6)	An untrimmed edge in any length	<b>No performance assessed</b>
		Deflected (uneven) fronts of rolls over $\pm 5$ mm (measured from the edge of the inner tube)	
		A gap over treble distance of wefts or warps in any length	
		Weft skewing or weft waving over 4 % of width of the fabric (measured by a rectangular rule)	
		A cracked thread	

No.	Essential characteristic and method of verification and assessment	Expression of product performance				
		MM 126 A101				
6	Tensile strength and elongation (EAD 040016-01-0404, Cl. 2.2.7)	Number of threads per meter, determined on the principle of EN 13496, Cl. 6.3	warp threads per meter	weft 1 threads per meter	weft 2 threads per meter	
			141	141	141	
		Number of threads within the width of 50 mm of the sample used for tensile strength testing	warp direction	weft 1 direction	weft 2 direction	
			7	7	7	
		In the as-delivered state - tensile strength - elongation $\epsilon$	warp direction	weft 1 direction	weft 2 direction	
			31.0 N/mm 3.75 %	36.9 N/mm 4.22 %	36.8 N/mm 4.29 %	
		After alkalis conditioning - tensile strength - elongation $\epsilon$	warp direction	weft 1 direction	weft 2 direction	
			23.4 N/mm 2.54 %	26.7 N/mm 2.83 %	26.4 N/mm 2.70 %	
		The average value of the tensile strength after alkalis conditioning shall be at least 20 N/mm and at least 50 % of the strength in the as-delivered state (residual strength):  passed: $\geq 20$ N/mm after alkalis conditioning and residual strength $\geq 50$ % of the strength in the as-delivered  Residual strength of the tensile strength after alkalis conditioning = 75 % (warp direction), 72 % (weft 1 direction) and 72 % (weft 2 direction) of the strength in the as-delivered				
		7	Mass per unit area (EAD 040016-01-0404, Cl. 2.2.8)	158 g/m <sup>2</sup>		
8	Thickness (EAD 040016-01-0404, Cl. 2.2.9)	0.47 mm				
9	Improvement to limitation of crack development (EAD 040016-01-0404, Cl. 2.2.10)	with installed triaxial mesh without additional diagonal strip, only weak hint colour penetration, fully comparable with solution made of biaxial mesh with additional diagonal strip, was identified				

#### **4. Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base**

According to the European Commission decision 97/556/EC, the AVCP system 2+ (further described in Annex V to Regulation (EU) No 305/2011 as amended) applies.

#### **5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

The manufacturer shall perform a permanent internal factory production control based on the control plan. The Control Plan specifies the type, test method, criteria and frequency of tests conducted on the final product.

The control plan for the manufacturer/corner stones (factory production control) is specified in Cl. 3.2 of EAD 040016-01-0404 Glass fibre mesh for reinforcement of cement based renderings. Manufacturer and Technical and Test Institute for Construction Prague have agreed a control plan which is deposited with the Technical and Test Institute for Construction Prague in documentation which accompanies the ETA.

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By  
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Head of the Technical Assessment Body

