

**RI-STRUTTURA****FBFAZ33x33T96AR****GFRP AREA MESH - Mesh 33x33 mm**

The GFRP distribution device **FBFAZ33x33T96AR** is a component of the RI-STRUTTURA System – Reinforced Plaster Technique (CRM) (Composite Reinforced Mortar), qualified with CE marking.

**FBFAZ33x33T96AR** Preformed GFRP (Glass Fiber Reinforced Polymer) mesh, distribution device, manufactured by Fibre Net SpA with Textfusion™ technology, mesh 33x33mm. The alkali resistant mesh Bars are made of fiberglass strands soaked with a thermosetting resin. Glass fibers and epoxy-vinyl ester thermosetting resin are worked and weaved orthogonally to obtain a monolithic square mesh sized specified as below. The weaving is made with multiple twisted warp and flat weft embedded into the warp yarns.



# RI-STRUTTURA FBFAZ33x33T96AR

## TECHNICAL DATA

	Description	
Commercial Name	FBFAZ33X33T96AR	
Manufacturer	Fibre Net SpA	
Mesh size (mm)	33 x 33	
Weight (g/m)	820	
Mesh size (cm)	15 x 15	
Fiber Nature	Alkali resistant glass	CE Marking – Equivalence Assessment n.9946 17- 12-2020
Nature of Matrix	Thermosetting epoxy-vinyl ester type	

## MECHANICAL CHARACTERISTICS (MESH DISTRIBUTION DEVICE)

Property	M.U.	Minimum Value between the two directions		Reference regulations
		Medium	Characteristic	
Tensile strength	MPa	495	365	ISO10406-1:2015 – CRM System Qualification
Tensile resistance	kN	5.6	4.3	ETA-19/0004 ISO 10406-1:2015
Joint tearing resistance	kN	0.46	0.25	ETA-19/0004
Young's modulus	GPa	25		ISO10406-1:2015 – CRM System Qualification
Ultimate strain	%	1.45		

## GEOMETRICAL CHARACTERISTICS (MESH DISTRIBUTION DEVICE)

Property	M.U.	Value		Reference regulations
		Weft wire (flat threads)	Warp wire (twisted threads)	
Cross-sectional diameter dimensions <sup>(2)</sup>	mm	3.84	3.37	CNR-DT 203/2006
Nominal section of each bar	mm <sup>2</sup>	11.6	8.9	CNR-DT 203/2006 ACI 44.3R-04 ISO 10406-1:2015
Nominal area of fibers	mm <sup>2</sup>	3.6	3.6	CNR-DT200/2004 CNR-DT203/2006
Bars/meter for each side	N°	5	5	
Mesh size	mm	33x33		

# RI-STRUTTURA FBFAZ33x33T96AR

## FISICAL CHARACTERISTICS (MESH DISTRIBUTION DEVICE)

Property		M.U.	Value		Reference regulations
			Weft wire (flat threads)	Warp wire (twisted threads)	
Fiber content (average value, minimum between weft and warp)	by weight	%	70		ISO 11667:1997(E)
	by volume		50		
Density	fiber	Kg/m <sup>3</sup>	2600		ISO 1183-1:2004 (E)
	matrix	Kg/m <sup>3</sup>	1200		
Glass transition temperature		°C	93		ISO 11357-2:2013
Operating temperature limits		°C	-15 ÷ +78		-
Water Resistance, (1000 hours) residual values	Tensile strength	%	100		ETA-19/0004
	Young's modulus		99		
Saltwater Resistance, (1000 hours) residual values	Tensile resistance	%	100		
	Young's modulus		95		
Alkali Resistance	Tensile resistance	%	100		
	Young's modulus		98		
Reaction to fire		-	Note 1		EN 13501-1:2009

### PROPERTY

- Preformed GFRP
- Bidirectionality
- Does not conduct electric currents
- Non-magnetic
- Radiolucency
- Stainless

### BENEFITS

- Excellent mechanical characteristics
- Durability
- Recyclability
- Resistance to atmospheric agents
- Lightness and manageability
- Speed and ease of application
- Compatibility with the masonry and with lime or cement-based mortars
- Reversibility
- Thin thickness

# RI-STRUTTURA FBFAZ33x33T96AR

## INDICATIONS ON THE APPLICATION OF THE SYSTEM

For applications according to the reinforced plaster technique C.R.M. (Composite Reinforced Mortar) integrate the mesh in the middle of the mortar bed, and make sure that the end sections are overlapped by 15 cm to guarantee mechanical continuity.  
Refer to installation instructions on masonry and concrete of the RI-STRUTTURA System (CRM) qualified with CE marking.

## PACKAGING

Standard packaging: 25, 100, 500 pieces.

## CONDITIONS OF HANDLING AND STORAGE

The GFRP distribution devices must be stored in a covered and dry place, protected against rain and direct sunlight. The user must refer to the most recent Safety Data Sheet.  
The material shall be protected against any deposit or contact with dust, grease, oil or any material capable to reduce the adhesion between mesh and mortar. Care shall be taken during transport, handling and storage in order to avoid the breaking of threads due to excessive flexural efforts (folding, blows, etc.).

## SAFETY INSTRUCTION

During transport and handling use protective overalls and gloves, goggles and safety face masks. In case of contact with skin, rinse with water and soap. In case of contact with eyes, rinse with water and seek medical advice if irritation persists. For information and advice about safety standards and about the use and conservation of the products, please refer to the current Safety Data Sheet.

## RECYCLABILITY

Fibre Net SpA has the "CSI RECYCLABLE COMPOSITES" certification for FRP products. GFRP FBFAZ33X33T96AR included in the products certified by CSICERT and is therefore wholly recyclable.



## SPECIFICATION ITEM

**FBFAZ33X33T96AR** Preformed distribution device in fiber-reinforced composite material G.F.R.P. (Glass Fiber Reinforced Polymer) by Fibre Net or equivalent, for structural consolidation of floors, vaults, masonry walls, made by bricks, stone, tuff, limestone or concrete blocks. Component of the RI-STRUTTURA System according to the Reinforced Plaster Technique C.R.M. (Composite Reinforced Mortar), qualified with CE marking.

Alkali resistant mesh, with monolithic square mesh – size 33x33 mm – manufactured by Fibre Net with Textursion™ technology. Bars are made of fiberglass strands impregnated with a thermosetting resin. Weaving with multiple twist warp and flat weft inserted between the warp fibers, minimum thickness 2,5mm, with n.30 Bars for each side meter (side), composite tensile strength 375 MPa, nominal section of each bar  $\geq 8,9$  mm<sup>2</sup>, composite Young's modulus  $\geq 25000$  N/mm<sup>2</sup>, characteristic tensile resistance for each bar wire  $\geq 4,3$  kN, ultimate strain 1,8%, characteristic Joint tearing resistance  $\geq 0,25$  kN.

Decay of tensile strength and elastic modulus for the humid, alkaline and saline environment <10%.

Note 1 The evaluation of the reaction to fire is determined according to the norm EN 13501-1:2007 + A1 2009. The minimal response to fire according to this classification it depends on the type of mesh:

Mesh type	Class of mortar used and his thickness	Reaction to fire
FBMESH33x33T96AR	A1 – sp. 25 ÷ 50 mm	B-s1, d0

Note 2 Value calculated in the hypothesis of circular cross section from the nominal section of each bar:

The purchaser is responsible for verifying the suitability of the products in this document for the use and purposes it aims at. Fibre Net SpA assumes no responsibility for improper use of the material. The customer is required to verify that this sheet and the data reported therein are valid for the product batch of his interest and are not outdated as replaced by subsequent editions and / or new product formulations or certifications. The customer is invited to contact our Technical Department in advance. This edition cancels and replaces any previous one.