

DRAGONET

MONOLITHIC PREFORMED GFRP MESH

FOR CRM SYSTEMS (COMPOSITE REINFORCED MORTAR)



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1. Code registry

Code	Description	Mesh (mm)	Weight	Color	Pkg. / Pallet
RET03-40330S	fiberglass mesh impregnated with resin without pigment 2x50 m roll	33 x 33	830 gr/m ²	Black	2 pc. x 100 m ² / 200 m ²
RET03-40660S	fiberglass mesh impregnated with resin without pigment 2x50 m roll	66 x 66	450 gr/m ²	Black	2 pc. x 100 m ² / 200 m ²
RET03-40660S	fiberglass mesh impregnated with resin without pigment 2x50 m roll	99 x 99	310 gr/m ²	Black	2 pc. x 100 m ² / 200 m ²

MATERIAL Made of alkali-resistant GFRP (Glass Fiber Reinforced Polymer), composite mesh, and weight of 830/450/310 gr./m².

2. DESCRIPTION

Dragonet mesh is preformed GFRP (Glass Fiber Reinforced Polymer), composed of ECR (chemical resistant and boron free) glass fibers impregnated with thermosetting resin, for structural consolidation. The mesh is made by darning pultruded gfrp rods having a net cross section of ECR type glass fiber of not less than 4 sq. mm and equivalent diameter of not less than 3 mm with interwoven rods in warp of the same cross section. It is supplied in rolls with a standard height of 2m and length of 25m. The rolls should be stored in dry places away from direct solar radiation.

3. USE

Reinforcement of masonry, vaults and floors for static and seismic upgrading of existing structures.

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4. TECHNICAL FEATURES

PROPERTIES	U.M	MESH			REFERENCE
		33 x 33	66 x 66	99 x 99	
Weight	gr/m ²	830	450	310	-
Yarn type	-	Continuous filament glass fiber			-
Sizing type	-	Epoxy resin			-
Weaving	-	Bidirectional			-
Number of threads in warp and weft per meter/side	-	30 - 30	15 - 15	10 - 10	-
Tensile modulus of elasticity, average value ¹	GPa	40			-
Tensile strength, characteristic value ¹	MPa	730			EAD 340392-00-0104
Average tensile load per single bar ¹	kN	5.8			
Average tensile load per unit length ¹	kN/m	174 kN	87	58	
Strain at break, characteristic value ¹	%	1,95			

DECLARED PERFORMANCES	U.M	MESH						REFERENCE
		33 x 33		66 x 66		99 x 99		
		TEXTURE	WARP	TEXTURE	WARP	TEXTURE	WARP	
Tensile strength $\sigma_{u,m}$ (average value)	MPa	876	845	926	833	912	893	EAD 340392-00-0104
Tensile strength $\sigma_{u,m}$ (characteristic value)	MPa	752	733	793	715	782	726	
Strain at break $\epsilon_{u,m}$ (average value)	%	2,24	2,29	2,43	2,25	2,29	2,39	
Strain at break (characteristic value)	%	1,74	1,81	1,87	1,78	1,86	1,92	
Modulus of elasticity E_m (average value)	GPa	43,60	38,45	43,78	39,68	39,96	41,22	
Modulus of elasticity E_m (characteristic value)	GPa	40,50	36,22	41,20	37,79	37,80	39,05	
Tear resistance of knot F_{junc} (mean value)	Kn	0,625	0,699	0,747	0,693	0,593	0,779	
Tear resistance of knot F_{junc} (characteristic value)	Kn	0,391	0,443	0,475	0,439	0,361	0,584	
Freeze-thaw resistance $\sigma_{u,FTC}$ (mean value)	MPa	907,48	799,68	907,48	799,68	907,48	799,68	
Resistance to frost and thaw $\sigma_{u,FTC}$ (characteristic value)	MPa	810,28	689,18	810,28	689,18	810,28	689,18	
Moisture resistance 1000h $\sigma_{u,w}$ (mean value)	MPa	842,66	580,09	842,66	580,09	842,66	580,09	
Moisture resistance 1000h $\sigma_{u,w}$ (characteristic value)	MPa	758,89	455,58	758,89	455,58	758,89	455,58	
Salt water resistance 1000h $\sigma_{u,w}$ (average value)	MPa	916,74	841,33	916,74	841,33	916,74	841,33	
Salt water resistance 1000h $\sigma_{u,w}$ (characteristic value)	MPa	818,47	756,10	818,47	756,10	818,47	756,10	
Alkali resistance 1000h $\sigma_{u,alk}$ (average value)	MPa	888,96	808,01	888,96	808,01	88,96	808,01	
Alkali resistance 1000h $\sigma_{u,alk}$ (characteristic value)	MPa	774,67	709,24	774,67	709,24	774,67	709,24	
Glass transition temperature	°C	104		104		104		
Fire reaction of KIT		A1		NPD		NPD		

1) Minimum value between warp and weft

5. TECHNICAL SPECIFICATION

Item	Description	Unit	Price
Dak.B.RET03.40x0S	Supply and installation of GFRP (Glass Fiber Reinforced Polymer) preformed mesh, composed of ECR (chemical resistant and boron free) glass fibers impregnated with thermosetting resin, for structural consolidation. Made by gfrp pultruded bars having a net cross-sectional area of ECR-type glass fiber of not less than 4 sq. mm and equivalent diameter of not less than 3 mm with interwoven bars in warp of equal cross-section. Used for reinforcing masonry, vaults and floors for static and seismic upgrading of existing structures. Supplied in rolls with a standard height of 2m and length of 25m.	pc.	-