
From: Jayesh Hirani <jayesh.hirani@everglade.co.uk>
Sent: 23 December 2016 10:52
To: VCL 487 - Finchley Road; Ravji Patel
Cc: Richard Green; Jaylesh Bharadia; aebutlerptrs@aol.com; Shashi Vekaria
Subject: RE: Honeycomb stone weight from STone panels
Attachments: schedetecnichehoneycombinglese.pdf

All,

Please see attached details received from the honey comb stone supplier.

- Petrographic description : **MOLEANOS LIMESTONE**
- Visual appearance : **BEIGE LIMESTONE**
- Flexural strength : **14,1 MPa**
- Water absorption : **3.07 %**
- Apparent density and open porosity : **2478 KG/M3 AND 7,2 %**
- Frost resistance => **COMPRESSIVE STRENGTH AFTER FREEZING: 93 MPa**

Kind regards,
Jayesh Hirani

From: VCL 487 - Finchley Road [<mailto:VCL487@vascroft.com>]
Sent: 23 December 2016 10:20
To: Jayesh Hirani <jayesh.hirani@everglade.co.uk>; Ravji Patel <ravji.patel@everglade.co.uk>
Cc: Richard Green <richardg@vascroft.com>; Jaylesh Bharadia <jayleshb@vascroft.com>; aebutlerptrs@aol.com
Subject: Honeycomb stone weight from STone panels

Hi Jayesh, Ravji,

Can you please provide weight details for the stone to Ted . Ted is designing the light weight frame in the front elevation and without stone technical information this cannot be progressed.

Kind regards,

Sanjay Ramji ICIOB – Assistant Site Manager
For and on behalf of
VASCROFT CONTRACTORS LTD

D: 0207 443 5294 | **M:** 0785 452 2588 | **H/O:** 020 8963 3400 | **W:** www.vascroft.com

Site Address: 120 Finchley Road, London, NW3 5JB

Head Office Address: Vascroft Estate, 861 Coronation Road, Park Royal, London, NW10 7PT

"Celebrating our 40th Year of Excellence in Construction"

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HONEYCOMB STONE CLADDING



Aluminium honeycomb

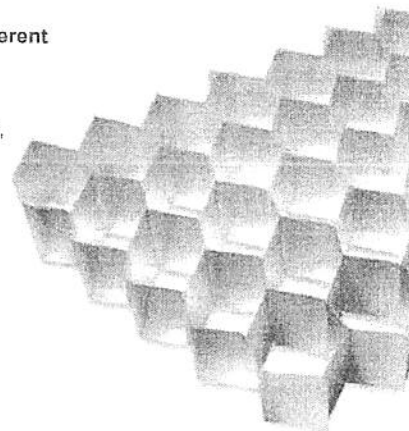
Aluminium honeycomb is used for several of applications (i.e. for tool machines, for serigraphy..etc.) and in different sectors such as: public transport industry, nautical sector, building industry, etc...

As core material, aluminium honeycomb is used in sandwich panels and it is utilised in: floors, roofs, doors, partitions, facades, working surfaces for automatic machines and for all products which require an optimal stiffness-to-weight-ratio.

Aluminium honeycomb as panels' core has several advantages:

- lightweight
- stiffness
- fire resistance
- compression, shear and corrosion resistance
- flatness

Aluminium honeycomb can be used as deflector for laminar flow-ventilation, and as crash-absorber for kinetic energy. Our clients have the possibility to choose among: honeycomb thickness (from 3 to 1000 mm), cell size (from 3 to 25 mm) and density. Honeycomb density (from 20 to 163 kg/m³) depends on foil's thickness and on cell size.

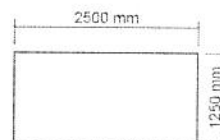
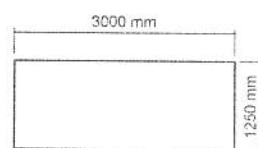
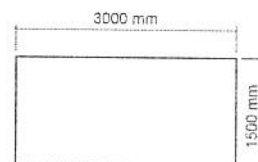


Honeycomb core's properties	50 Microns				
Aluminium Alloy series 3000	3003/3005/3103/3104				
Ø honeycomb in mm ca.	3,2	6	9	12	19
Ø honeycomb in inches	1/8"	1/4"	3/8"	1/2"	3/4"
Density kg/m ³	116	56 - 59	39 - 40	29 - 30	20 - 21
Compressive stabilised strength MPa	6,5	3,0 - 3,5	1,4 - 1,95	0,8 - 0,95	0,4 - 0,6

Honeycomb core's properties	70 Microns				
Aluminium Alloy series 3000	3003/3005/3103/3104				
Ø honeycomb in mm ca.	3,2	6	9	12	19
Ø honeycomb in inches	1/8"	1/4"	3/8"	1/2"	3/4"
Density kg/m ³	163	80 - 83	54	40 - 42	27 - 29
Compressive stabilised strength MPa	10,2	4,3 - 4,6	2,5 - 2,6	1,41 - 1,5	0,85 - 0,9

Alloy 3000/3003/3005/3103/3104 aluminium honeycomb is sold **perforated** or **non perforated** (the micro perforations allowing air flow between cells, for use under vacuum or decompression) in three forms: **unexpanded block non perforated**, **unexpanded slices**, **expanded sheets**.

Standard dimensions
(other dimensions available on request)



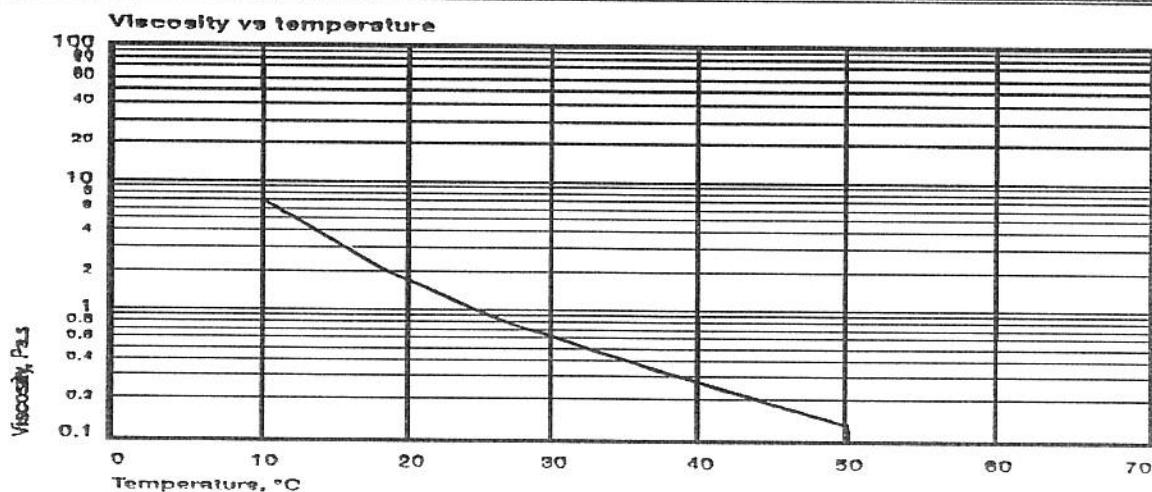
EPONOL LT 740/EL-5

EPOXY RESIN FOR MARBLE

- **TRADE NAME** EPONOL LT 740/EL-5
- **CODICE COMMERCIALE** 10740EL500000
- **KIND OF PRODUCT** Epoxy resin with reactive solvents
- **RESIN VERSION** Neutral
- **USE** Resinate marble
- **TECHNOLOGY** Use of resin at room temperature

Properties of liquid resin	Test method	Units	Value
Appearance			Liquid
Colour	ASTM D 1544 TEC ASP 006	Gardner	0,5 Max
Absolute density at 25 °C	SMS 1347	Kg/l	1.10
Flash Point (PMCC)	ASTM D93	°C	> 150
Viscosity 25 °C	ASTM D445	Cps	500-600
Stability at dark		Months	4

Mechanical properties of resin hardened	Measurement unit	Value
Compression Strength	Mpa	75 - 85
Resistance to tensile stress	Mpa	55 - 65
Bendino Strength	Mpa	45 - 55
Modulus of elasticity	Mpa	1,800 - 2,300
Resistance to impacts	kI/m ²	75 - 85



CATALIZZATORE L 96

(HARDENED AT 50%)

Catalyst L96, with aliphatic amine base for liquid epoxy resins (average epoxy equivalent 190).

It has a very good stability of colours and it is fit in contact with foodstuff. Coatings obtained using this product have an excellent lustre, hardness, transparent, and good chemical resistance.

CARACTERISTICS	Unit of measure	Value
Contents of active substance	%	100
Viscosity 25 °C	cPs	30 - 70
Gardner Colour		2 max
Hydrogen equivalent		85
Flash point (closed cup)	°C	95
Ratio in 100 of epoxy resin	%	45-50
Pot life at 25 °C for 150 gr	Min.	40
Hardening time in films of 200 at 25 °C	Hours	7

STORAGE: the product keeps for at least a year if it remains well plugged in its own drum and far from sources of heat and in a dry and not cold spot.

PRECAUTIONS IN USE: Catalyst L96 is a corrosive substance. Therefore, it must be used with caution, wearing appropriate gloves or protective creams. Use it in a airy spot to avoid any accumulation of exhalations.

In case of contact with eyes, wash immediately and abundantly with water and consult a doctor.

WOVEN ROVING

PROPERTIES

- good adaptability to the profile of the die
- high mechanical properties
- compatibilit  with resins:
 - polyester
 - vinyilester
 - epoxy
- facility to do the following processes:
 - contact pressing, lamination,
 - winding,
 - poltrusion,
 - continuous impregnation,
 - dielectric plates,
 - special panels

Woven rovings produced from rovings of E glass are presented in a wide range of weaves : clothes, twills, satins and unidirectionals. The possibilities to vary the construction both in warp and in weft permit a good adaptability to the demands for several applications.

DISPOSABLE PERFORMANCES

Standard products are available in a width of 120 cm,
However other widths could be made quickly and easily.

Special production on request

A wide range of weights and widths with different weaves
And types of weaving can be normally supplied.

The requests of non-standard products are accepted,
Except reserve of production, minimum quantities per order and
Deliveries.

PACKING

The fabrics are wound on a chuck of carton internal diameter 76 mm.
Individual and collective packing: they are used considering
The several kind of products and to protect them in the best way.
On a pallet of 120 X 120 cm there are 12 rolls (except for different request).
Everything is kept together with plastic tapes and straps.

SPECIFICATIONS/WOVEN ROVINGS

CODICE CODE	ARTICOLO STYLE	ARMATURA WEAVE	PESO/WEIGHT gr/mq +/- 3%	ORDITO WARP		TRAMA WEFT		SPESSORE THICKNESS +/- 10 %
				n° fili al cm	titolo	n° fili al cm	titolo	
				thread count	TEX	thread count	TEX	
66703000	gr. 300	TELA cloth	300	2.5	600	2.5	600	0.4
66705000	gr. 500	TELA	504	2.3	1200	1.8	1200	0.6
66706000	gr. 600	TELA	600	2.5	1200	2.5	1200	0.7
66708000	gr. 800	TELA	816	2.0	2400	1.5	2400	1.10
66719000	gr. 900	TELA	912	2.0	2400	1.8	2400	1.20

SPECIFICATIONS

		VALUES				
		LONGITUDINAL TEST PIECES				
RESISTANCE TO TENSILE STRESS WOVEN ROVING GR 500	Reference UNI EN 61 March 1997	Crack point	Ultimate elongation	Unitary crack point	Tangential modulus of elasticity	Ultimate elongation per cent
		[N]	[mm]	[Mpa]	[Mpa]	[%]
		6447.72	4.34	122.74	2230.15	7.24
		TRANSVERSAL TEST PIECES				
		Crack point	Ultimate elongation	Unitary crack point	Tangential modulus of elasticity	Ultimate elongation per cent
		[N]	[mm]	[Mpa]	[Mpa]	[%]
		8174.07	5.82	155.11	2246.92	9.56

SPECIFICATIONS

		VALUES	
		TEST PIECES	
HUMIDITY CONTENT WOVEN ROVING GR 500	Reference ISO 3344 - 77	HUMIDITY CONTENT	
		[%]	
		0.049 ± 0.02	

SPECIFICATIONS						
FLEXURAL STRENGTH WOVEN ROVING GR 500		VALUES				
		LONGITUDINAL TEST PIECES				
		Maximum load	Deflection at maximum load	Bending moment	Inertia modulus	Unitary load at flexure
		[N]	[mm]	[N – m]	[mm ³]	[Mpa]
		659.34	6.11	12923.1	58.44	221.35
		TRANSVERSAL TEST PIECES				
		Maximum load	Deflection at maximum load	Bending moment	Inertia modulus	Unitary load at flexure
		[N]	[mm]	[N – m]	[mm ³]	[Mpa]
		693.62	6.37	13594.9	56.01	243.21
		Modulus of elasticity at flexure				
		[Mpa]				
		8286				

SPECIFICATIONS				
RESISTANCE TO CUTTING WOVEN ROVING GR 500		VALUES		
		TEST PIECES		
		Thickness	Load	Resistance to cutting
		[mm]	[N]	[Mpa]
		5.242	33479.10	800.33

SPECIFICATIONS					
RESISTANCE TO INTERLAMINAR CUTTING WOVEN ROVING GR 500		VALUES			
		LONGITUDINAL TEST PIECES			
		Width	Length	Surface	Load
		[mm]	[mm]	[mm ²]	[N]
		12.70	6.40	81.28	2369.59
		Resistance to planar cutting			
		[MPa]			
		29.15			
		TRANSVERSAL TEST PIECES			
		Width	Length	Surface	Load
		[mm]	[mm]	[mm ²]	[N]
		12.69	6.40	81.23	2332.25
		Resistance to planar cutting			
		[MPa]			
		28.71			

SPECIFICATIONS		
COMBUSTIBLE SUBSTANCES WOVEN ROVING GR 500		VALUES
		TEST PIECES
		CONTENT OF COMBUSTIBLE SUBSTANCES
		[%]
		0.35 ± 0.02