



Material Weight 3 Types MA 20S / MA 70M / MA 100F ca. 380 Kg/m3 Certification Available dimensions: Low flame spread en smoke & toxicity: IMO Res. MSC 61 (67) 40 mm wide (other width on request) **Thickness** Application 10 mm Specific i.c.m. sound-absorbing floor (Druma-Floor NC-SR)

Bisco L3 M 0940 is a full replacement for the traditional one. polyurethane foams, which are used to dampen and cancel vibrations and contact noise on board ships, but do not contribute in any way to fire safety.

For that reason, they can no longer be used on board ships and large yachts, which must be built under IMO / SOLAS regulations.

Bisco L3 M 0940 is a new material with superior properties, is MED certified (low flame spread and smoke & toxicity IMO Resolution MSC 61 (67)) and is resistant to oil, grease and water.

Bisco L3 M 0940 retains its shape under load and performs excellently as a vibration isolator and is therefore ideally suited for use in combination with our newly developed floor system, which is sound-insulating and also MED certified as B-15 floor.

For the specification of this floor, please refer to the Drumafloor NC-SR product sheet.

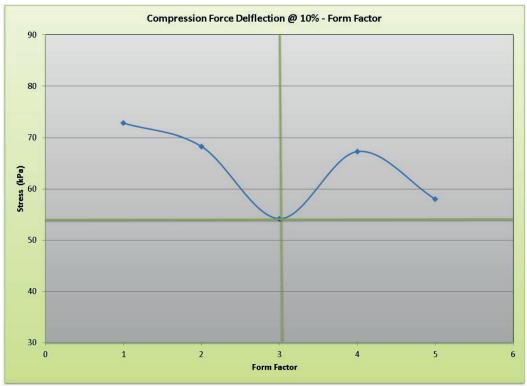
#### **Physical Properties**

	MA-20S	MA-70M	MA-100F		
				Units	Method
Color	Black	Orange	Gray		
Thickness	10			mm	
Static Load Range	20	70	100	kPa	Internal
Compression Force Deflection	28	110	152	kPa	ASTM D1056
Compression Set	< 5			%	ASTM D1056
Temperature Range	-55C to 200C			Deg C	Internal
Specifications	IMO FTP Part 5 & Part 2				
	MED Module B Certificate				
	MED Module D Certificate (MED-D-1693)				

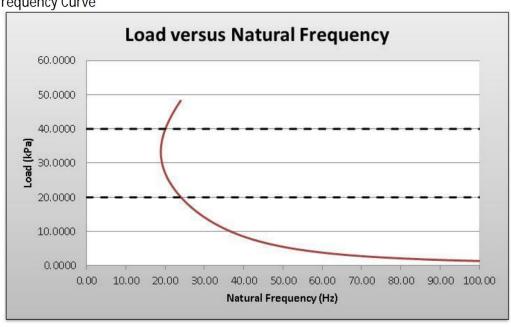


**MA-20S** 

### Compression Deflection – Form Factor

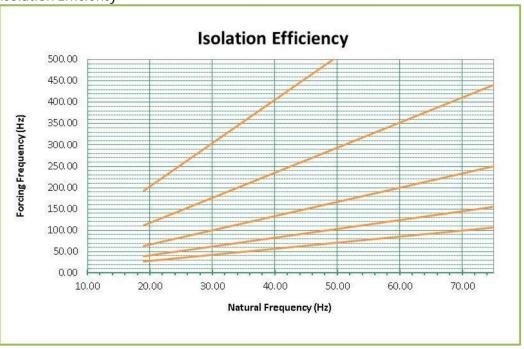


# Natural Frequency Curve



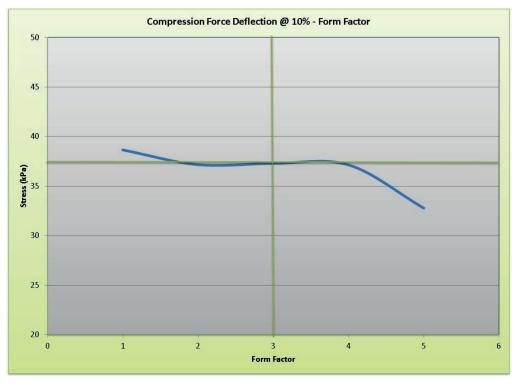


# Vibration Isolation Efficiency



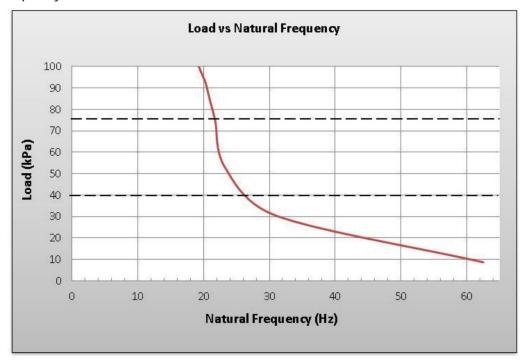
MA-70M

Compression Deflection – Form Factor

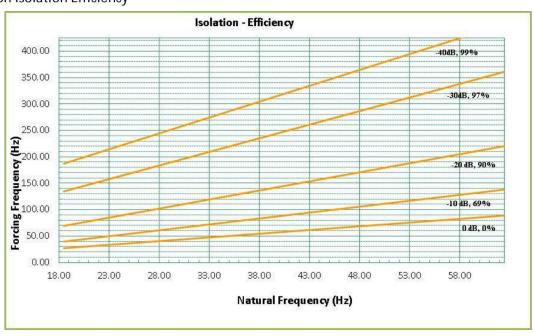




## Natural Frequency Curve



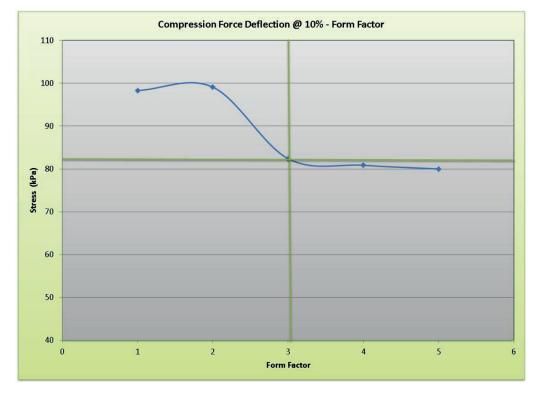
## Vibration Isolation Efficiency



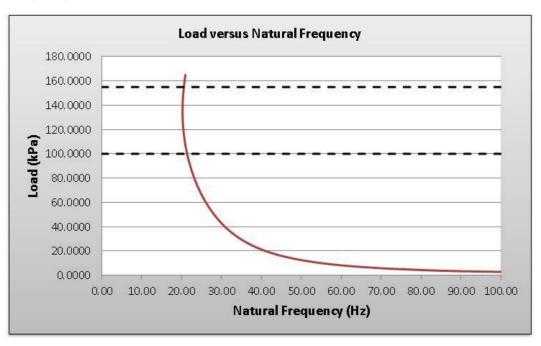


MA-100F

Compression Deflection – Form Factor



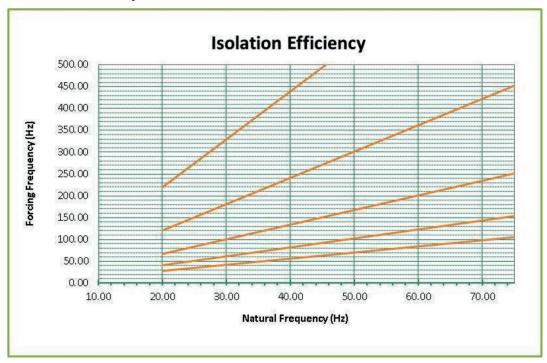
# Natural Frequency Curve





#### **MA-100F**

# Vibration Isolation Efficiency



#### BISCO





# )-R-U-M-A---E-L

Noise reduction **Thickness RW 34 dB** 17 mm - 26mm Sizes System Weight 2400 x 600 mm 17mm - 21 kg/m2 | 22mm - 26 kg/m2 | 26mm - 31 kg/m2 Certification Core material Class B-15 according to IMO Res. 754 (18) Calcium silicate, rot, moisture and impact resistant Application Sound-absorbing floating floor (Can be used in combination with BISCO MA)

This panel with an RW value of 34 dB is made up of calcium silicate core, with an aluminum plate on both sides, glued with a sound-insulating adhesive.

The panels have a groove on all sides and are connected by means of an aluminum spring and fixed with steel screws with countersunk head.

#### PRODUCT FEATURES

The floating floor can optionally be equipped with an integrated and IMO B-15 approved inspection hatch. This hatch can be used by means of specially developed stainless steel profiles that fit into the standard panel grooves and based on the standard panel width of the floor. The maximum length of the inspection hatch is 520 x 590 mm.

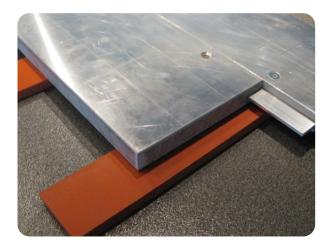
The panels are supplied with sturdy corner protection and the panels are pre-drilled and grooved all around. After installing the panels and the aluminum strip, the spring connection must be drilled (diameter 4.5 mm). After this, the panels can be joined with the supplied thread-forming screws M5 x 12 mm and M5 x 16mm).

It is recommended to protect the floor with hardboard panels after installation to prevent damage to the panels.

- Complies with IMO Res. 754 (18) requirements
- Floating floor (in combination with BISCO MA)
- · Easy installation, no special tools
- Excellent mechanical properties
- Weight and noise reduction in accordance with conventional sandwich panels
- Thread-forming screws (M5 x 12 and M5 x 16mm) are included



# DRUMA-FLOOR NC/SR





# 3-R-U-M-A-F-L--0-0-R-

Thickness	Sizes
17 mm	2400 x 600 mm
System Weight	Noise reduction
20 kg/m2	RW 34 dB
Certification	Core material
Non-combustible; volgens IMO Res. MSC A.799 (19)	Calcium silicate, rot, moisture and impact resistant
Application	
Floor system *, to be installed on trusses or rock	wool

This panel is constructed from a calcium silicate core, with an HPL plate on both sides, with a sanded surface.

The panels are provided with a groove all around and are mounted by means of an aluminum spring and fixed with steel screws with countersunk head.

#### PRODUCT FEATURES

- Complies with IMO Res. MSC A.799 (19),
- Floating floor in combination with Bisco or rock wool,
- Easy installation,
- · Excellent mechanical properties,
- · Low weight.

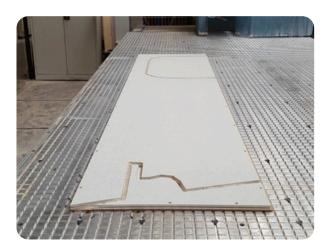
#### INSTALLATION AND PROCESSING

If the panels are placed on rafters, we recommend a rafter distance of 40cm \* and they must be sufficiently aligned. If the floor panels are installed on stone wool, the steel sub-floor must be sufficiently flat. The panels are supplied with heavy plastic corner protectors and are pre-drilled all around, with the holes countersunk. After the panels and the aluminum springs have been installed, only the holes need to be drilled (drill diameter 4.5 mm), after which the panels can be fixed with the supplied thread-forming screws (M 5×12 mm). It is recommended to cover the floor with hardboard plates afterwards, or if the floor is subjected to extreme loads during construction, underlayment plates to prevent damage. We also supply CoverGuard on request; a flame-retardant plastic protective film with a non-slip structure, with which the whole can be covered (supplied on a roll (110 x 0.91 m)). This means that sparks from welding, burning or grinding can no longer be a hazard.

\* At a frame spacing greater than 40cm, a higher floor load than usual or where a higher system weight is required, Drumafloor NC can be used in combination with the Druma basicfloor NC.



# DRUMAFLOOR NC





# P-L-U-R-A-T-E-C-T-M-A-R-I-N-E-L-I-G-H-T

#### TECHNICAL DATA

Colour Surface conditions

White core with Promat Blue finish Smooth

Normal density (tolerances)

Reaction to fire

500 (±10%) kg/m3 None-combustible according to MED certificates module B and D - ask to Drumarkon more information

Class divisions Panels joint

B15 Bulkhead:19mm Solid Spline / "C"-Spline or Omega
C: 12.5 - 19mm

Termal conductivity Compress resistance

0.25 W/mK >2.4 MPa

Young Modulus (MD) (EN 15283-1)

Bending strength (MD) (EN 15283-1)

1500 MPa 5.5 MPa

Alkalinity - Surface / Core

1500 MPa

#### ACOUSTIC PROPERTIES

Tickness Rw Index (ISO 717/1)

19mm - 19+19mm (+10mm air gap) 27 - 36 dB

#### STANDARD DIMENSIONS

Tickness (tolerances)

Length (tolerances)

12.5;19 mm (+/- 0.3) 2500 - 2800 - 3050 mm (+/- 0.5)

Width (tolerances)

1220 mm (+/- 0.4)



PLURATECT MARINE LIGHT is a versatile, lightweight, non-combustible fire protection board ideal for installation and applications in the marine market for B and C Class divisions

#### PROPERTIES

- Smooth and consistent surface
- Suitable for bonding laminates
- · High ductility withstanding high deformations
- · Easy to process and install
- 100% recyclable

### WORKABILITY

PLURATECT MARINE LIGHT can be cut using normal cutting tools or by using circular blades. When bonded with HPL specific blades must be used. During cutting operations use personal protective equipment.

#### WASTE DISPOSAL

Refer to local legislation. If not available. The board is not classified as a dangerous subtance and so no special provisions are required regarding the carriage and disposal of the product to landfill.

#### STORAGE

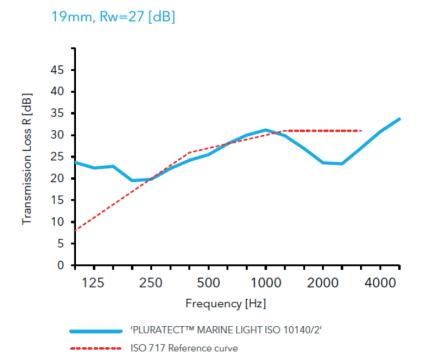
Store on a flat surface, in a dry area.

#### AREA OF APPLICATION

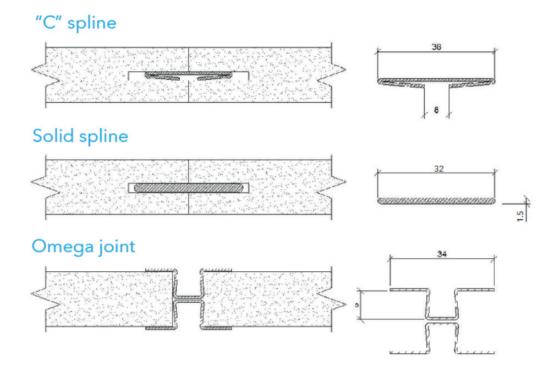
- B and C Class constructions
- · Fire-rated linings and bulkheads
- · Public areas, standard and luxury cabins
- Non-combustible furniture



# ACOUSTIC PROPERTIES



### CLASS DIVISIONS - JOINT DRAWINGS





PLURATECT MARINE LIGHT





# P-R-0-M-A-S-I-L---M-A-R-I-N-E

Noise reduction **Thickness** 

RW 27 dB (22 mm thickness glued with HPL) 22-50 mm

Size Density

2500 x 600/1000 mm 285 kg/m3

Certification Application

C class and B15 class (23mm thickness) Bulkhead and furniture

Basic material

Calcium silicate, rot-, moisture- and impact resistant

### **ADVANTAGES**

High temperature resistant

Chemical and moisture resistant

Good workability

Minimal gas and smoke emission (in case of fire)

#### APPLICATIONS

B15 Class partitions

**Furniture** 

PROMASIL MARINE





640: 9,5mm / 12,7mm / 19,1mm

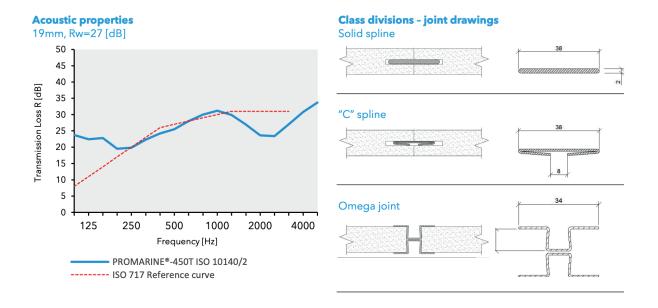
Weight **Dimensions** 450 Kg/m3 - 640 Kg/m3 2500 x 1220 mm Surface Application Bare or covered with HPL Wall, Ceiling, Furniture **Thickness** 

Promarine is a non-combustible calcium silicate panel, reinforced with minerals and fibers. It is available in 450 kg / m3 and 640 kg / m3

#### PROMARINE 450

450: 19mm

- With a weight of 30% less: dry density of 450 kg / m3. Although installed on vessels where the weight of the product is of great importance, Promarine 450T offers lightweight solutions.
- Improved heat insulation properties
- Special thicknesses: We can supply special thicknesses on request.



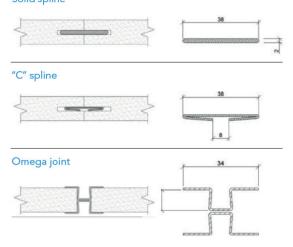
#### PROMARINE 640

- Nominal dry density of 640 kg / m3.
- Certification: Promarine 640T is non-flammable, B15. (MED certified 96/98 / EC. Directive 98/95 and Directive 2001/53).

Promarine can be machined with standard tools.

#### **Acoustic properties** 12.7mm, Rw=29 [dB] 50 45 40 35 Transmission Loss R [dB] 30 25 20 15 10 5 0 4000 125 1000 2000 Frequency [Hz]

Class divisions - joint drawings Solid spline



19.0mm, Rw=30 [dB]

