SONIQ
ENGINEERED NOISE CONTROL
by ISOPARTNER

VIBRATION DAMPING
SYLOMER FR MARINE- elastomer

SYLOMER MARINE FR	static load till	Insulation range (dyn. and stat. load)
418 = mottled yellow	0,011 - 0,018 N/mm²	0,026 N/mm²
428 = mottled pink	0,018 - 0,028 N/mm²	0,037 N/mm²
442 = mottled purple	0,028 - 0,042 N/mm²	0,056 N/mm²
455 = mottled blue	0,042 - 0,055 N/mm²	0,072 N/mm²
4110 = mottled dark blue	0,055 - 0,110 N/mm²	0,15N/mm²

Description

Sylomer FR Marine is a high quality polyurethane foam (Elastomer) that, because of its elastic qualities, is eminently suitable for sprung assemblies.
Sylomer FR is MED certified for marine applications and comes in standard thicknesses 12mm.

Characteristics

- Sylomer FR Marine damps as well horizontal, vertical and torsional vibrations
- Permanent elastic properties, even with a large brief overload
- Sylomer FR plates / rolls can be cut to size with a (Stanley)knife or bandsaw
- Excellent flame retardant properties conform IMO MSC 307(88), FTP Code 2 and 5, MED module B- and D certified
- Excellent vibration damping and insulating properties with a long service life and consistent product properties over decades
- Resistant to water, motor oil, grease, diesel
- Light weight material
- Low building height (to achieve a low floor height)
- Easy to install
- Optimal ratio static / dynamic stiffness
- Does not contain plasticizers, silicones and other harmful substances
- Temperature resistant –30 °C till +70 °C

Application

Machines and equipment, floating floors, retention walls, electronic equipment, generators, batteries, disconnection of wheelhouses, disconnection of heliports, HVAC systems, disconnection of swimming pools and flexible seals on board ships, yachts, cruise ships and offshore platforms.

Processing

Alternative thicknesses (as standard) can be created by gluing layers together
for bonding SYLOMER FR on steel, wood, concrete,
direct exposure to the sun should be avoided plastic and so we recommend using an MED certified adhesive.

Dimensions

Plates of maximum 1.500 mm long and 500 mm wide
Standard small strip of 1500 x 50 mm and 1500 x 40 mm
Special thicknesses, dimensions and combinations on demand

Type selection

SYLOMER FR type can be determined as follows:
- Determine the weight of the device to machine (N) (1 kg = Newton 10)
- Calculate the contact area floor / machine, including two U-sections (in mm²)calculate the surface pressure = static load (N / mm

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- Determine what type of SYLOMER FR is suitable to the calculated static load (see table first page)

Calculation method

To calculate the correct thickness of SYLOMER FR make use of specification sheet of the established type SYLOMER FR(ask us ISOPARTNER)

- Determine the frequency noise of the machine (if not known: divide rpm through 60 or choose the natural frequency as low as possible)
- Determine with graph "Natural frequency" what natural frequency is by thickness of 12 mm
- Determine with the natural frequency and the disturbing frequency in the graph "Vibration isolation efficiency" the reduction value in dB; herewith is above the line -10 dB well and above the line -20 dB is excellent

If the required reduction is not achieved, the insulation value with thicker types should be defined in the same way, until the optimum thickness has been determined the following notes apply to compression:
1. the compression is proportional to the load
2. with maximum static load compression is approx. 10%

If SYLOMER FR strips are applied, the strips should not be too narrow with respect to thickness; maintain minimum ratio of width = 2 x thickness
If this minimum ratio cannot be respected, please contact us
In order to keep the above calculation method as simple as possible, we have not indicated all SYLOMER FR possibilities
If has not been possible to define a suitable type of SYLOMER on the basis of the above information, or if further information is required, please do not hesitate to contact us

Example of applications:

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