Sylomer® Marine FR 4110
Data Sheet

Material mixed-celled flame retardant
PU elastomer (polyurethane)
Colour mottled dark blue

Standard delivery dimension
Thickness: 12.5 mm / 25 mm
Mat: 0.5 m wide, 1.5 m long
Strip: max. 1.5 m long

Other dimensions on request in dependence of quantity and delivery time.

Material properties | Test methods | Comment
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Resistance to strain at 10% | 0.117 N/mm² | EN ISO 844¹
Resistance to strain for permanent loading | 0.11 N/mm² | EN ISO 1856²
Operating load range (static plus dynamic loads) | up to 0.15 N/mm² | approx. 15 % deformation
Load peaks (short term, infrequent loads) | up to 3 N/mm² | approx. 70 % deformation
Compression set | < 5 % | EN ISO 1856²
Mechanical loss factor | 0.25 | DIN 53513¹
Min. tear strength | 1.2 N/mm | DIN ISO 34-1¹
Min. tensile stress at rupture | 0.45 N/mm² | DIN 53504¹
Min. tensile elongation at rupture | 80 % | DIN 53504¹
Thermal conductivity | 0.09 W/(mk) | DIN EN 12667
Temperature Range | -30 °C to 70 °C | short term temperature peaks possible
Hydrolysis stability | very good | DIN 53428¹
Flammability | approved | IMO MSC 307 (B8)

¹ Measurement/evaluation in accordance with the relevant standard
² Values apply to shape factor q = 3

Load deflection curve

Fig. 1: Quasi-static load deflection curve for different bearing thicknesses

Quasi-static load deflection curve measured with a loading rate of 0.011 N/mm²/s.

Testing between flat steel-plates; recording of the 3rd load, with filtered starting range in accordance with ISO 844, testing at room temperature.

Shape factor q = 3

All information and data is based on our current knowledge. The data can be applied for calculations and as guidelines, are subject to typical manufacturing tolerances and are not guaranteed. Material properties as well as their tolerances can vary depending on type of application or use and are available from Getzner on request.
Modulus of elasticity

Quasi-static modulus of elasticity as a tangent modulus taken from the load deflection curve; dynamic modulus of elasticity due to sinusoidal excitation with a velocity level of 100 dBv re. $5 \cdot 10^{-8}$ m/s (equal to an oscillating range of 0.22 mm at 10 Hz and 0.08 mm at 30 Hz).

Measurement in accordance with DIN 53513

Shape factor q = 3

Natural frequencies

Natural frequencies of a single-degree-of-freedom system (SDOF system) consisting of a fixed mass and an elastic bearing consisting of Sylomer® Marine FR 4110 based on a stiff subgrade.

Parameter: thickness of the elastic bearing

Shape factor q = 3

Static creep behaviour

Deformation under consistent loading.

Parameter: permanent static load

Shape factor q = 3