XYLOFON

HIGH-PERFORMANCE RESILIENT SOUNDPROOFING PROFILE

PERFORMANCE
It significantly reduces the transmission of airborne and structural noise (from 5 dB to over 15 dB).

6 mm
The low thickness of the 5 versions supports a wide load range (up to 6 N/mm^2) without affecting design choices. Also appropriate for LVL.

MONOLITHIC
The monolithic structure of the polyurethane ensures stability, water-tightness and the absence of subsidence over time.

CODES AND DIMENSIONS

code	Shore	B [mm]	L [m]	s [mm]	pcs.
XYL35080	35	80	3,66	6,0	1
XYL35100		100	3,66	6,0	1
XYL35120		120	3,66	6,0	1
XYL35140		140	3,66	6,0	1
XYL50080	50	80	3,66	6,0	1
XYL50100		100	3,66	6,0	1
XYL50120		120	3,66	6,0	1
XYL50140		140	3,66	6,0	1
XYL70080	70	80	3,66	6,0	1
XYL70100		100	3,66	6,0	1
XYL70120		120	3,66	6,0	1
XYL70140		140	3,66	6,0	1
XYL80080	80	80	3,66	6,0	1
XYL80100		100	3,66	6,0	1
XYL80120		120	3,66	6,0	1
XYL80140		140	3,66	6,0	1
XYL90080	90	80	3,66	6,0	1
XYL90100		100	3,66	6,0	1
XYL90120		120	3,66	6,0	1
XYL90140		140	3,66	6,0	1

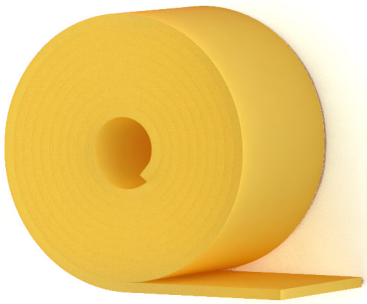
NOISE REDUCTION

Tested and certified for use as a desolidarisation and mechanical interruption layer between building materials. Allows deformation up to 1 mm of thickness.

CERTIFIED VALUES

Tested in the FLANKSOUND PROJECT by the Industrial Research Centre of the University of Bologna in accordance with EN ISO 10848. Values starting from a frequency of 15 Hz.

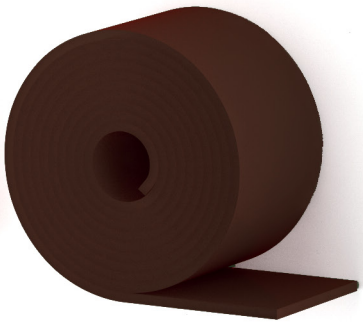
35 SHORE



50 SHORE

70 SHORE

80 SHORE



90 SHORE

MY PROJECT SOFTWARE

INSTALLATION

The profiles are easily processed and installed using the most common site tools; their reliability over time is guaranteed by the homogeneity of polyurethane, a stable and waterproof material.

MATERIAL AND DURABILITY

Polyurethane mixture between 35 and 90 shore.
Product free of VOCs and harmful substances.
Extremely chemically stable and without deformations over time.

XYLOFON 35 SHORE TABLE OF USE [1]

Code	APPLICABLE COMPRESSION [N/mm²]		DEFORMATION [mm]		APPLICABLE LINEAR LOAD [kN/m]	
	from	to	min	max	from	to
XYL35080	0,027	0,275	0,06	0,60	2,16	22,00
XYL35100					2,70	27,50
XYL35120					3,24	33,00
XYL35140					3,78	38,50

XYLOFON 50 SHORE TABLE OF USE [1]

Code	APPLICABLE COMPRESSION [N/mm²]		DEFORMATION [mm]		APPLICABLE LINEAR LOAD [kN/m]	
	from	to	min	max	from	to
XYL50080	0,180	0,605	0,16	0,62	14,40	48,40
XYL50100					18,00	60,50
XYL50120					21,60	72,60
XYL50140					25,20	84,70

XYLOFON 70 SHORE TABLE OF USE [1]

Code	APPLICABLE COMPRESSION [N/mm²]		DEFORMATION [mm]		APPLICABLE LINEAR LOAD [kN/m]	
	from	to	min	max	from	to
XYL70080	0,455	1,500	0,13	0,44	36,40	120,00
XYL70100					45,50	150,00
XYL70120					54,60	180,00
XYL70140					63,70	210,00

XYLOFON 80 SHORE TABLE OF USE [1]

Code	APPLICABLE COMPRESSION [N/mm²]		DEFORMATION [mm]		APPLICABLE LINEAR LOAD [kN/m]	
	from	to	min	max	from	to
XYL80080	1,300	2,400	0,32	0,59	104,00	192,00
XYL80100					130,00	240,00
XYL80120					156,00	288,00
XYL80140					182,00	336,00

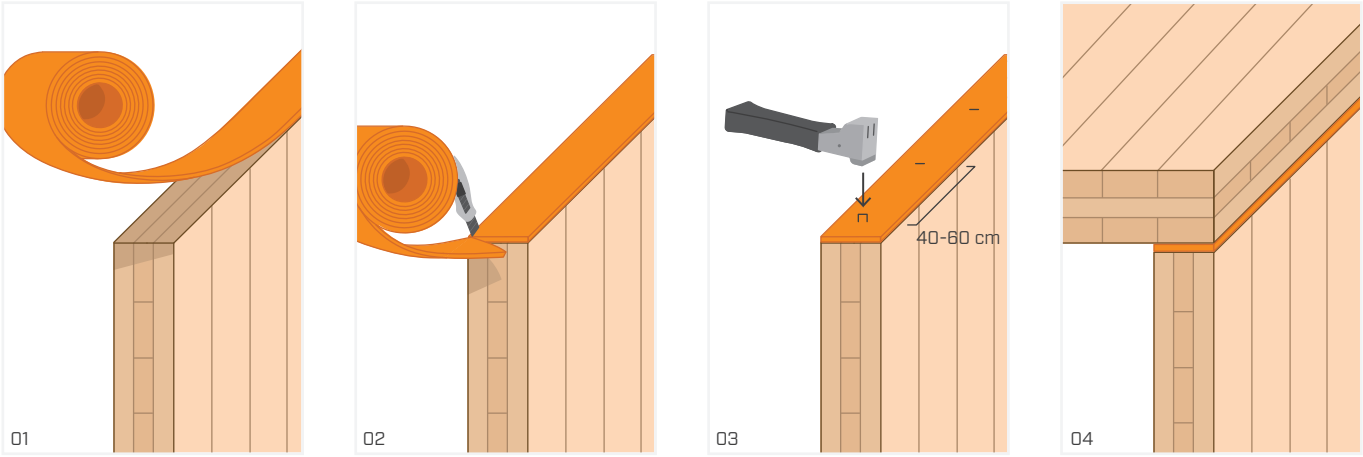
XYLOFON 90 SHORE TABLE OF USE [1]

Code	APPLICABLE COMPRESSION [N/mm²]		DEFORMATION [mm]		APPLICABLE LINEAR LOAD [kN/m]	
	from	to	min	max	from	to
XYL90080	2,200	4,500	0,30	0,62	176,00	360,00
XYL90100					220,00	450,00
XYL90120					264,00	540,00
XYL90140					308,00	630,00

TECHNICAL SPECIFICATIONS

Property	Standard	Value	Value	Value	Value	Value
Hardness	-	35 shore	50 shore	70 shore	80 shore	90 shore
Elastic modulus at 10% (compression)	ISO 604	2,74 MPa	6,74 Mpa	20,5 Mpa	24,3 Mpa	43,5 Mpa
Dynamic stiffness s' [2]	ISO 9052	1262 MN/m^3	1455 MN/m^3	1822 MN/m^3	2157 MN/m^3	> 2200 MN/m^3
Creep [3]	EN 1606	< 0,5 %	< 0,5 %	< 0,5 %	< 0,5 %	< 0,5 %
Compression deformation DVR [4]	ISO 1856	1,5 %	0,5 %	0,3 %	0,9 %	3,7 %
Dynamic elastic modulus E', 10 Hz (DMTA)	ISO 4664	2,16 MPa	3,53 MPa	10,1 MPa	19 MPa	43 MPa
Dynamic shear modulus G', 10 Hz (DMTA)	ISO 4664	1,13 MPa	1,18 MPa	3,24 MPa	6,5 MPa	16,7 MPa
Damping factor Tan δ	ISO 4664	0,177	0,132	0,101	0,134	0,230
Max processing temperature (TGA)	-	200 °C	> 200 °C	> 200 °C	> 200 °C	> 200 °C
Reaction to fire	EN 13501-1	class E	class E	class E	class E	class E
Thermal conductivity (λ)	-	0,2 W/mK	0,2 W/mK	0,2 W/mK	0,2 W/mK	0,2 W/mK

APPLICATION INSTRUCTIONS



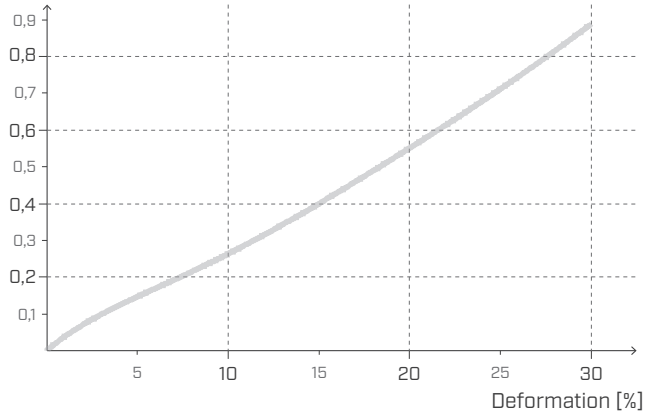
NOTES:

[1] The load ranges reported here are optimised with respect to the static behaviour of the material assessed under compression, considering the effect of friction and the system resonance frequency, which falls between 20 and 30 Hz, with a maximum deformation of 12%.
For further information on use and calculation, please see page 86.
[2] s' = s' (t) the air contribution is not calculated, because the product is infinitely airtight (extremely high flow resistivity values).
[3] Data from 30 days of observation.
[4] Measurements performed on material with nominal thickness of 30 mm.

35 SHORE

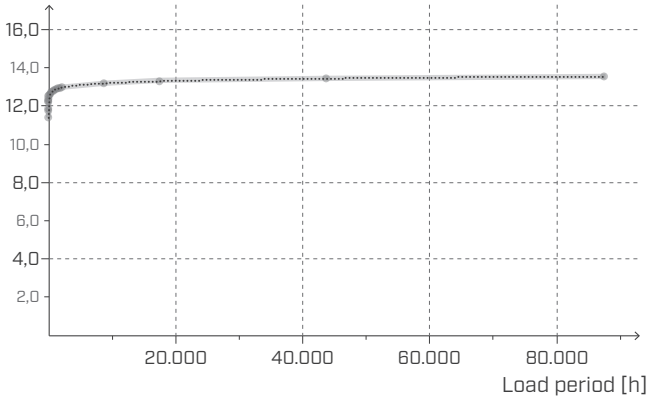
STRESS | DEFORMATION
COMPRESSION

Stress [MPa]



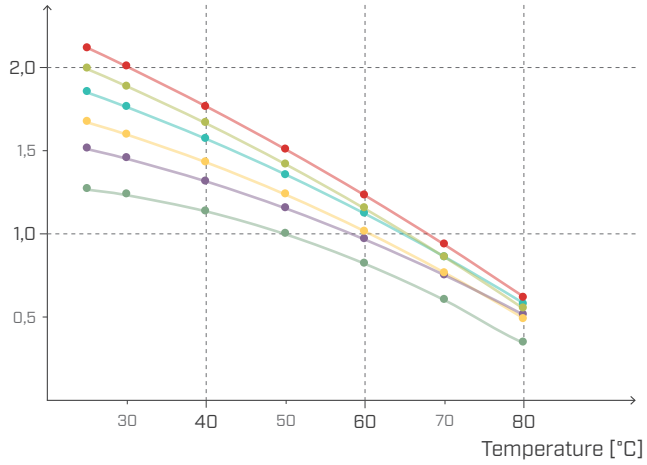
CREEP
COMPRESSION

Relative deformation
[% reduction in sample thickness]



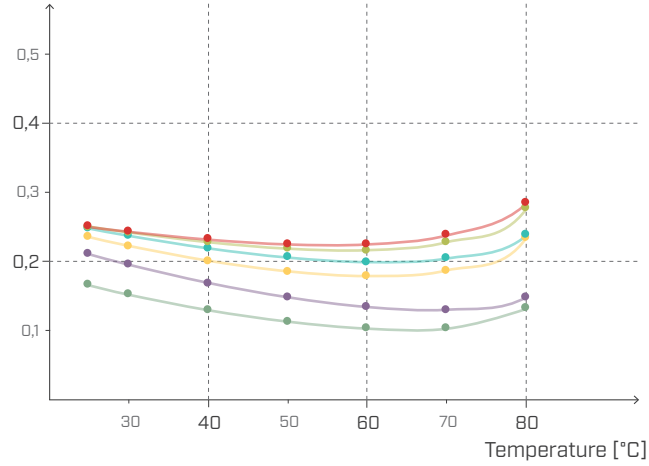
DYNAMIC ELASTIC MODULUS E'
DMTA

E' [MPa]



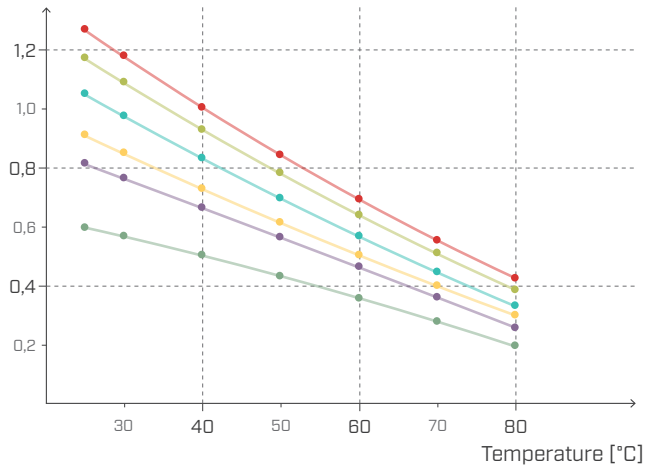
TAN δ UNDER STRESS
DMTA

Loss factor



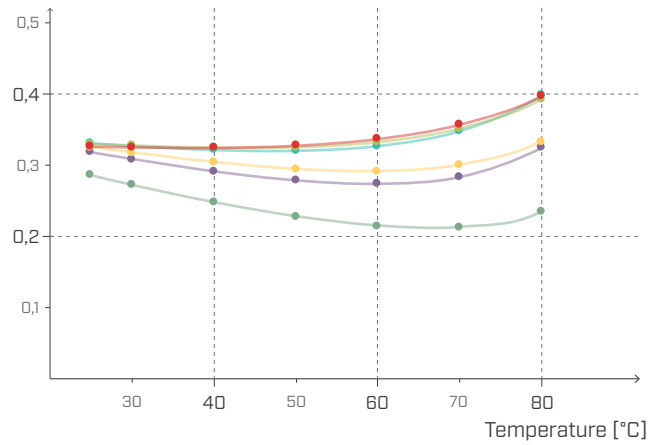
DYNAMIC ELASTIC MODULUS G'
DMTA

G' [MPa]

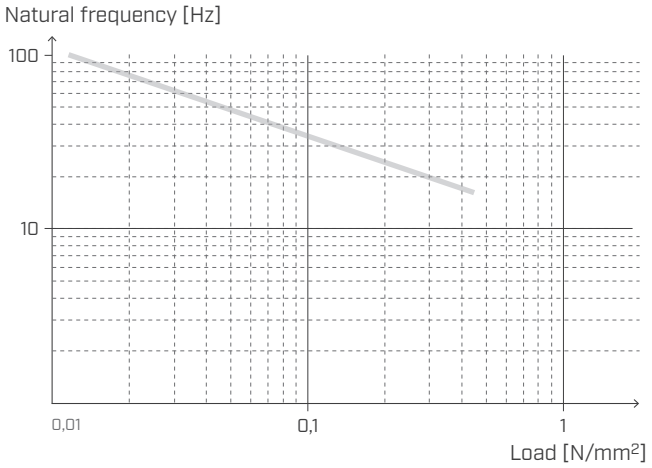


TAN δ SHEAR
DMTA

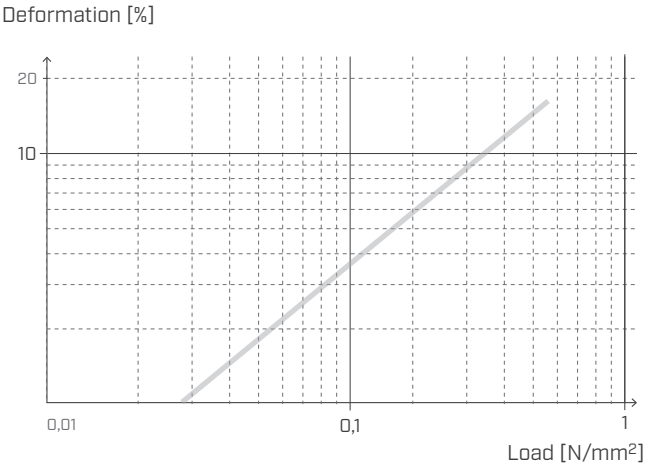
Loss factor



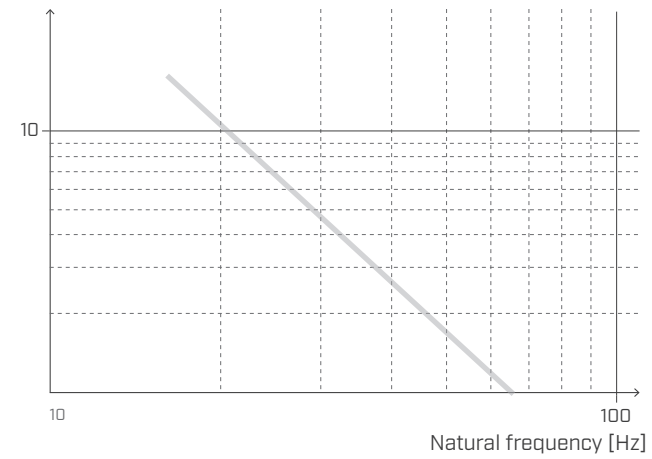
NATURAL FREQUENCY AND LOAD



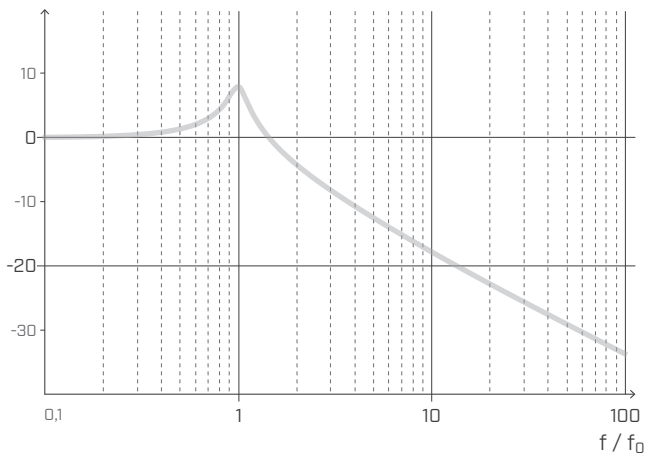
DEFORMATION AND LOAD



DEFORMATION AND NATURAL FREQUENCY

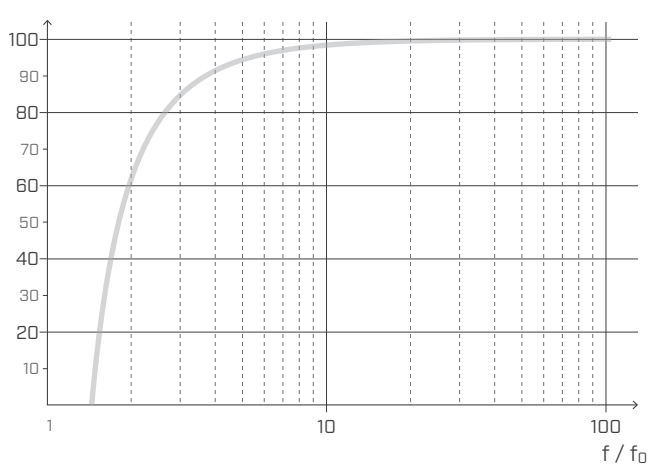


TRANSMISSIBILITY



Normalised with respect to the resonance frequency with f = 40 Hz.
Elastic module measured from compression and deformation tests at 10%.

ATTENUATION

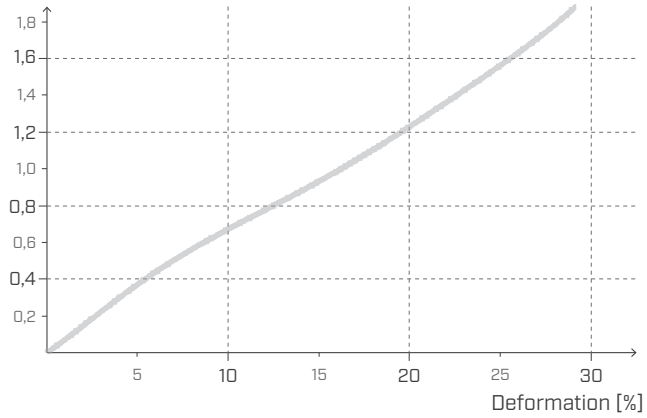


- 1,0 Hz/MPa
- 5,0 Hz/MPa
- 10,0 Hz/MPa
- 20,0 Hz/MPa
- 33,3 Hz/MPa
- 50,0 Hz/MPa

50 SHORE

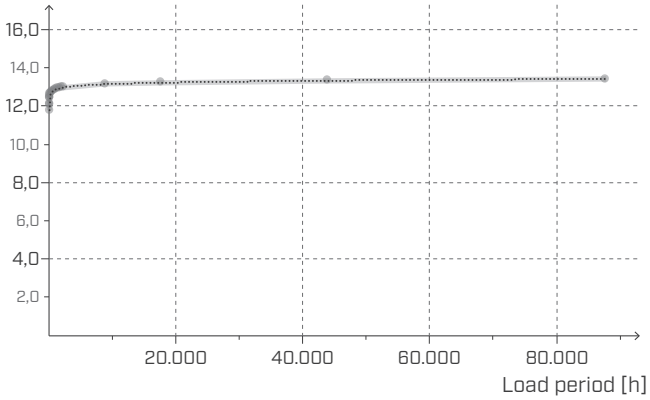
STRESS | DEFORMATION
COMPRESSION

Stress [MPa]



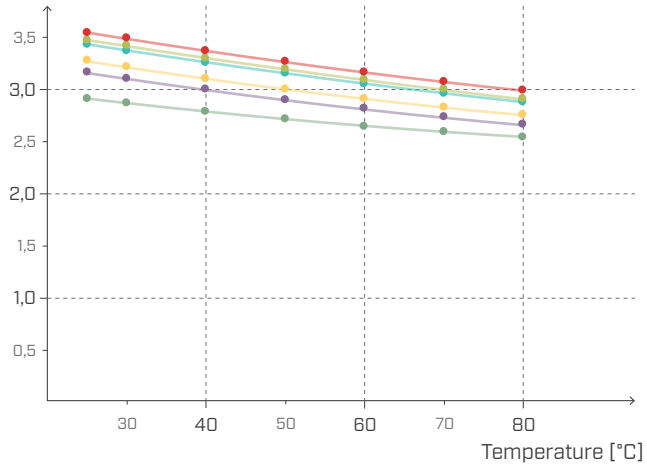
CREEP
COMPRESSION

Relative deformation
[% reduction in sample thickness]



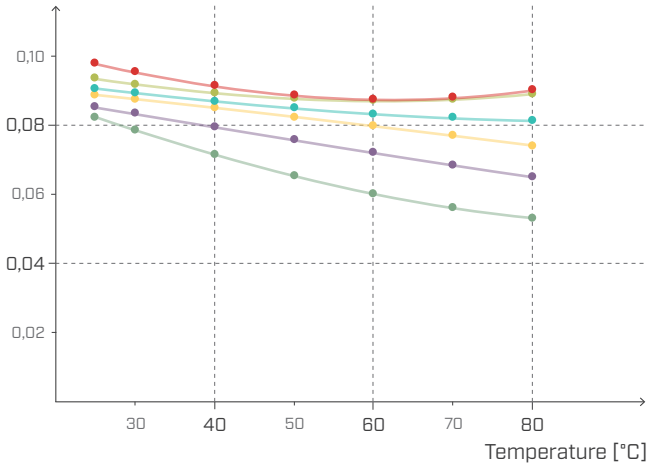
DYNAMIC ELASTIC MODULUS E'
DMTA

E' [MPa]



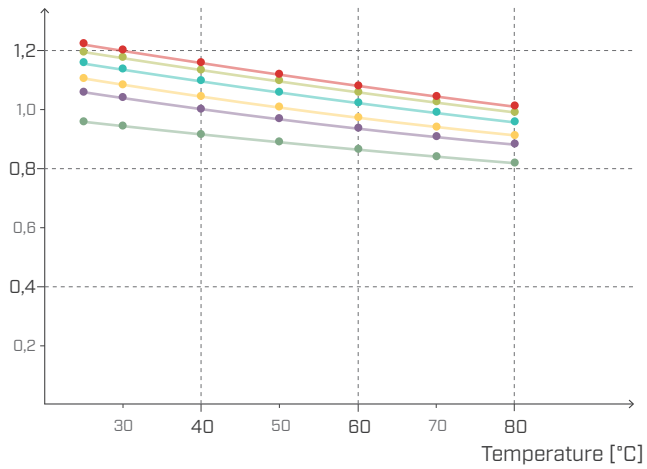
TAN δ UNDER STRESS
DMTA

Loss factor



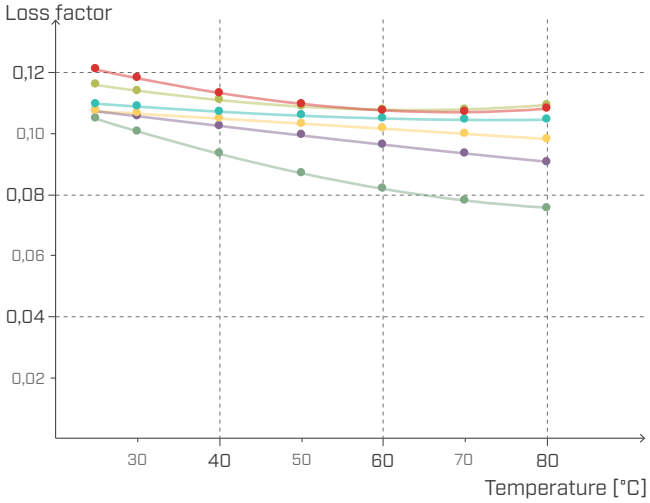
DYNAMIC ELASTIC MODULUS G'
DMTA

G' [MPa]

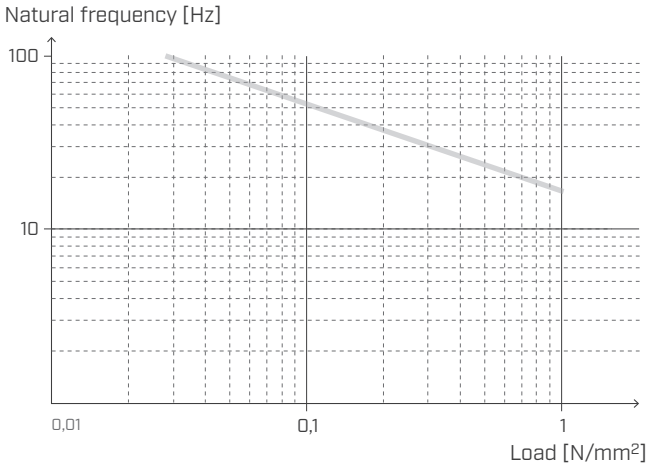


TAN δ SHEAR
DMTA

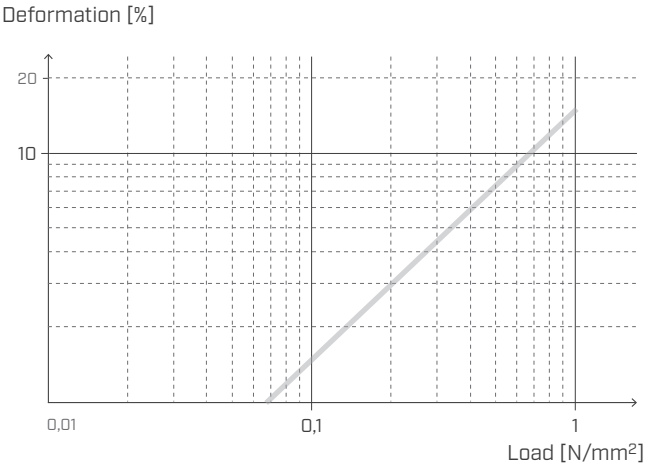
Loss factor



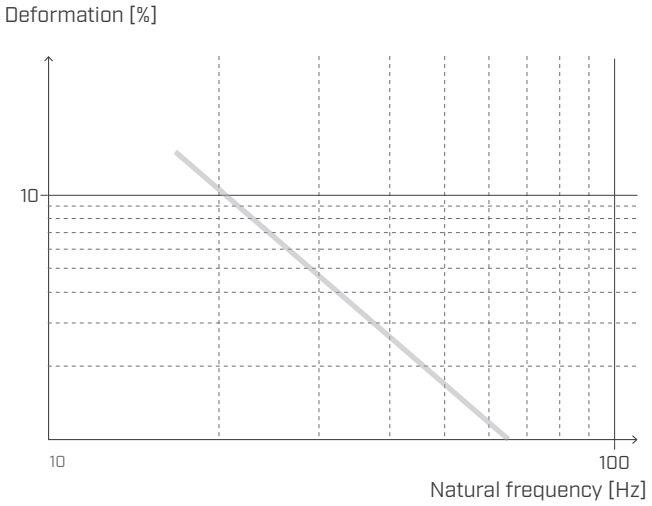
NATURAL FREQUENCY AND LOAD



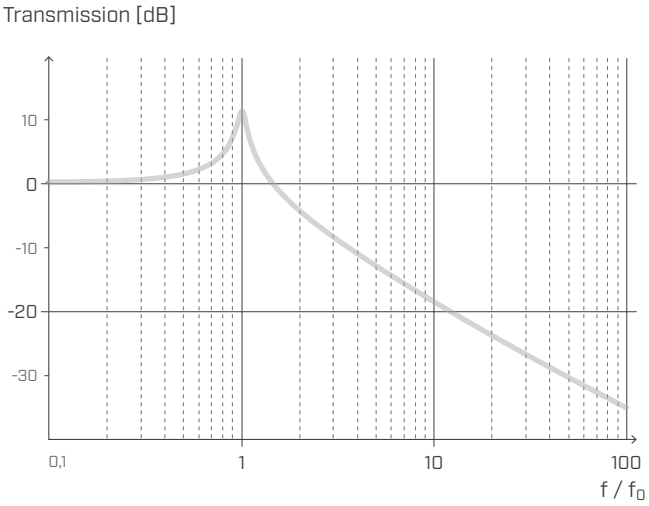
DEFORMATION AND LOAD



DEFORMATION AND NATURAL FREQUENCY

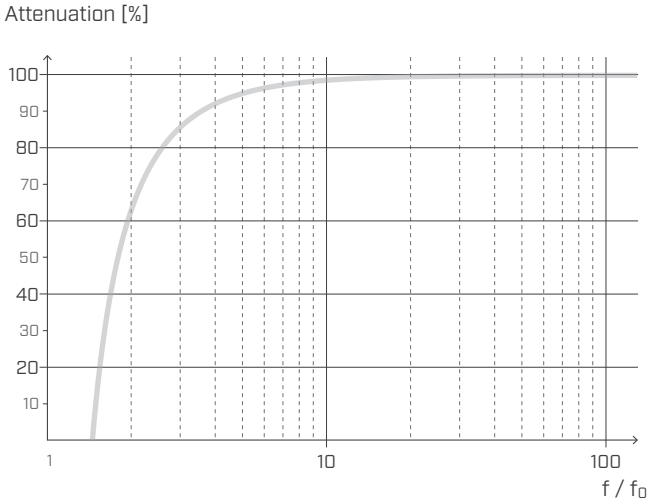


TRANSMISSIBILITY



Normalised with respect to the resonance frequency with f = 40 Hz.
Elastic module measured from compression and deformation tests at 10%.

ATTENUATION

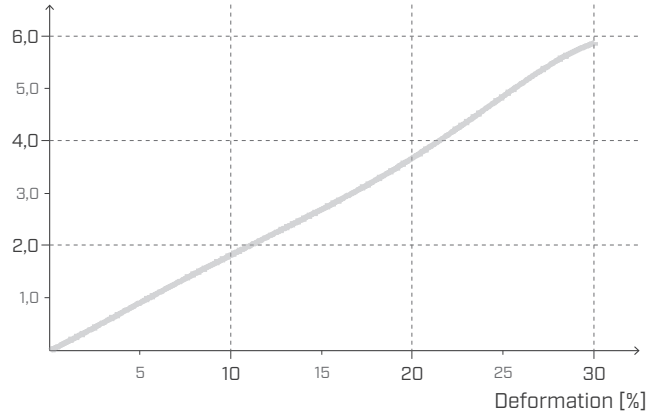


- 1,0 Hz/MPa
- 5,0 Hz/MPa
- 10,0 Hz/MPa
- 20,0 Hz/MPa
- 33,3 Hz/MPa
- 50,0 Hz/MPa

70 SHORE

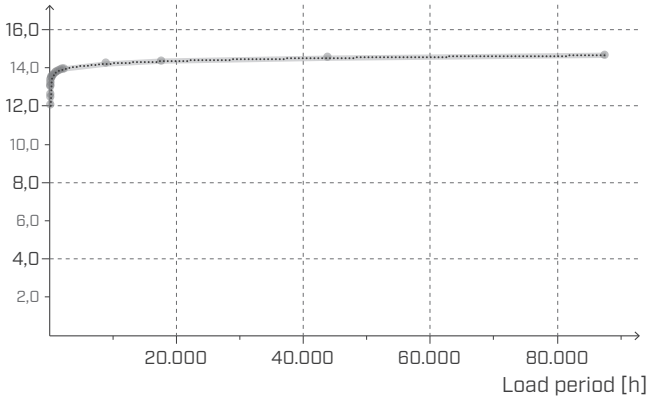
STRESS | DEFORMATION
COMPRESSION

Stress [MPa]



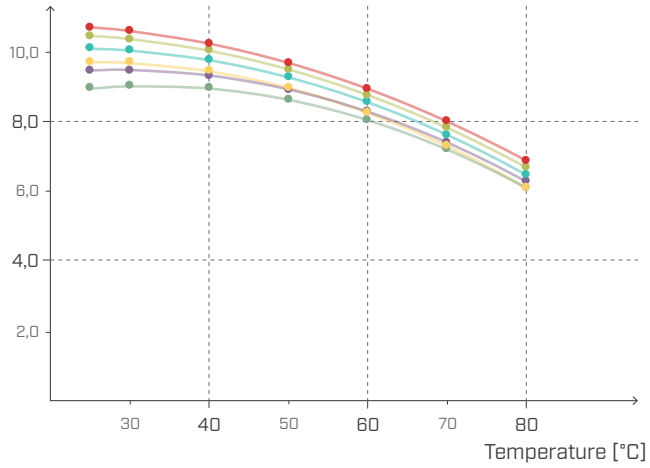
CREEP
COMPRESSION

Relative deformation
[% reduction in sample thickness]



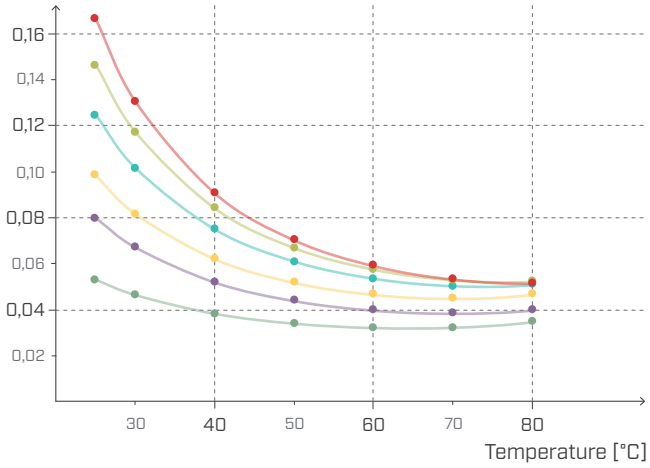
DYNAMIC ELASTIC MODULUS E'
DMTA

E' [MPa]



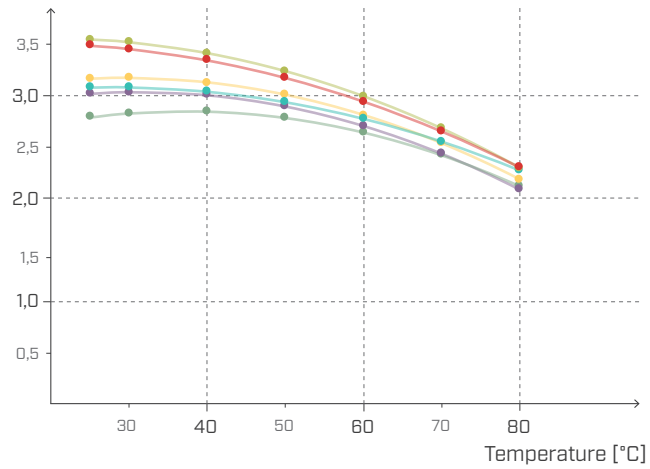
TAN δ UNDER STRESS
DMTA

Loss factor



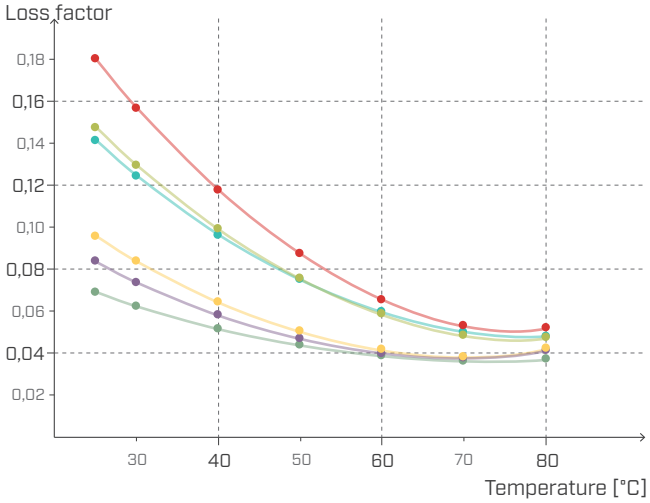
DYNAMIC ELASTIC MODULUS G'
DMTA

G' [MPa]

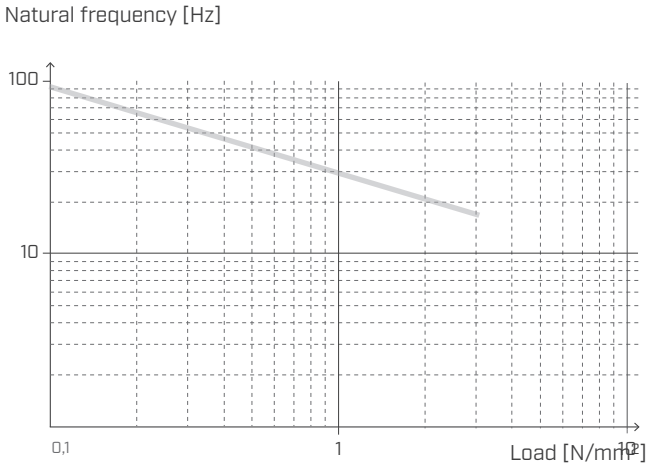


TAN δ SHEAR
DMTA

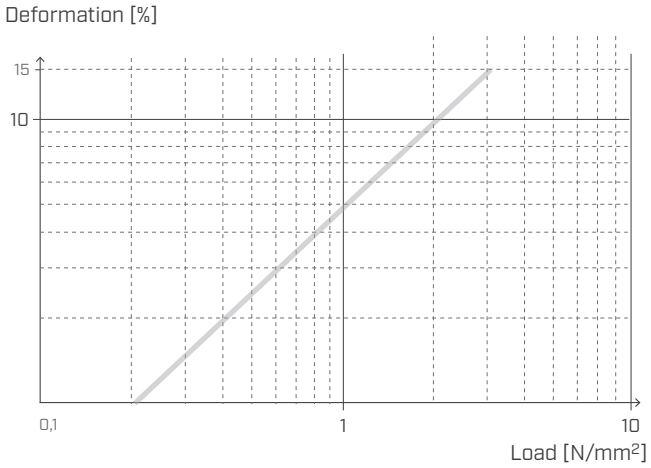
Loss factor



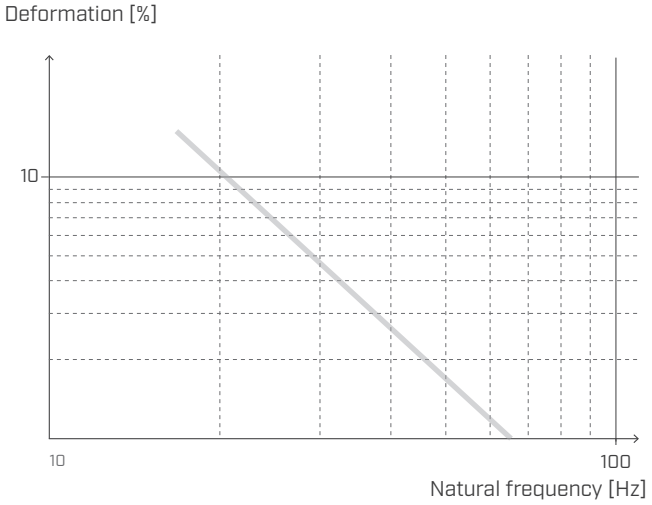
NATURAL FREQUENCY AND LOAD



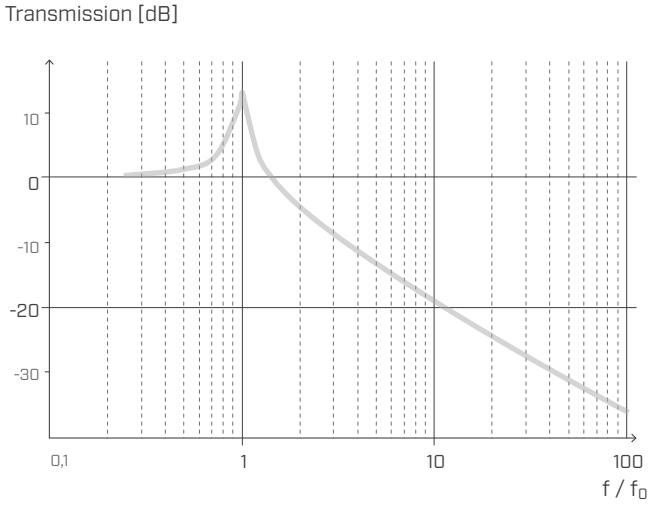
DEFORMATION AND LOAD



DEFORMATION AND NATURAL FREQUENCY

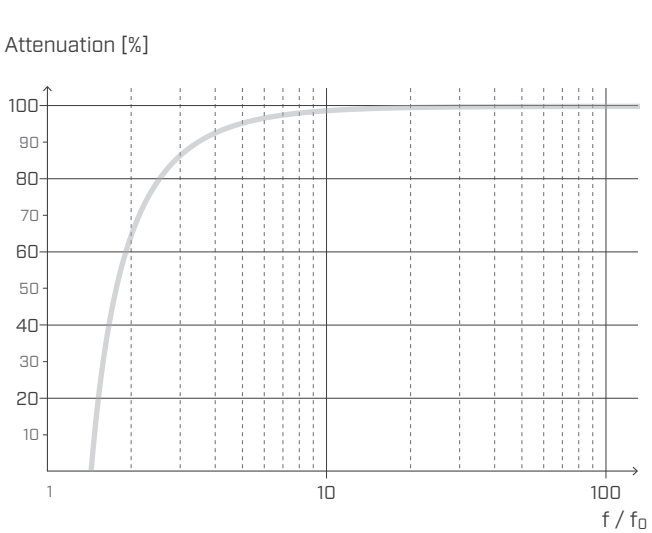


TRANSMISSIBILITY



Normalised with respect to the resonance frequency with f = 40 Hz.
Elastic module measured from compression and deformation tests at 10%.

ATTENUATION

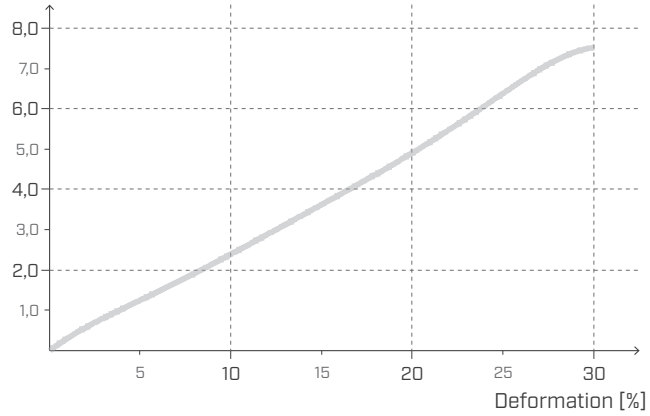


- 1,0 Hz/MPa
- 5,0 Hz/MPa
- 10,0 Hz/MPa
- 20,0 Hz/MPa
- 33,3 Hz/MPa
- 50,0 Hz/MPa

80 SHORE

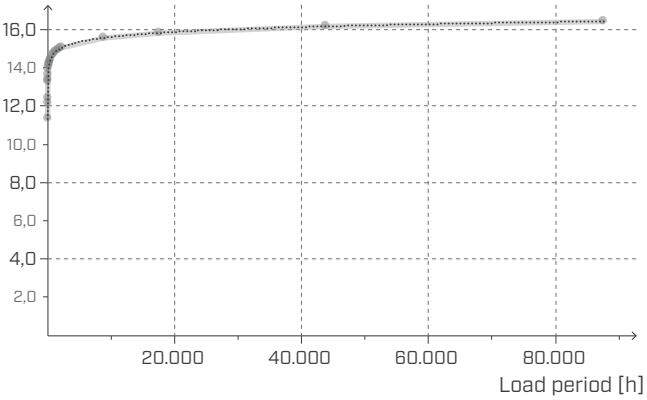
STRESS | DEFORMATION
COMPRESSION

Stress [MPa]



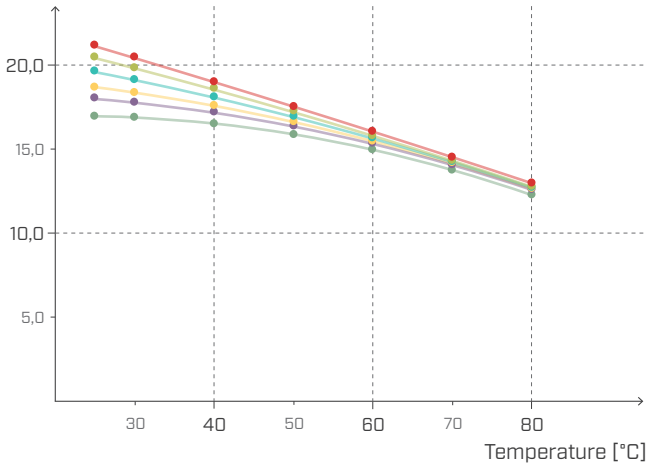
CREEP
COMPRESSION

Relative deformation
[% reduction in sample thickness]



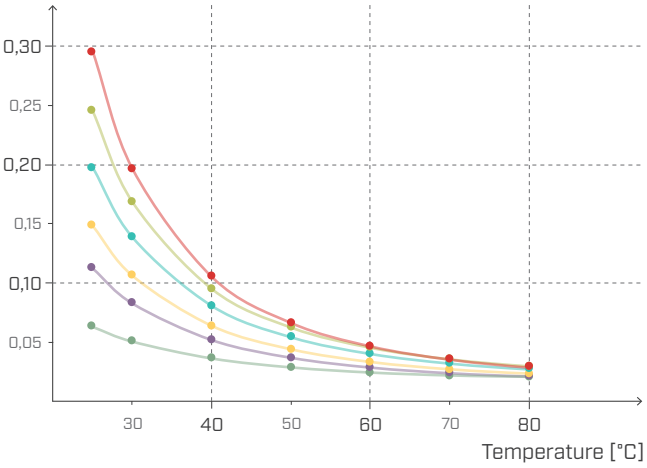
DYNAMIC ELASTIC MODULUS E'
DMTA

E' [MPa]



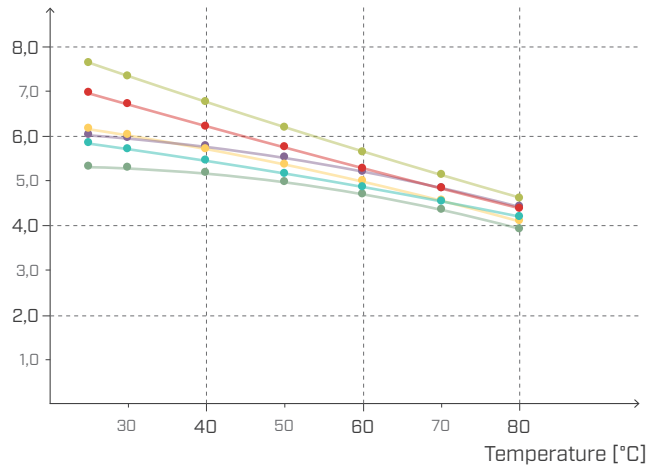
TAN δ UNDER STRESS
DMTA

Loss factor



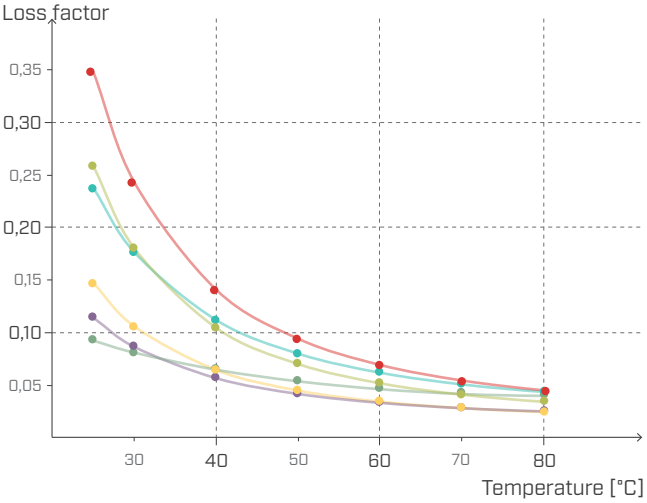
DYNAMIC ELASTIC MODULUS G'
DMTA

G' [MPa]

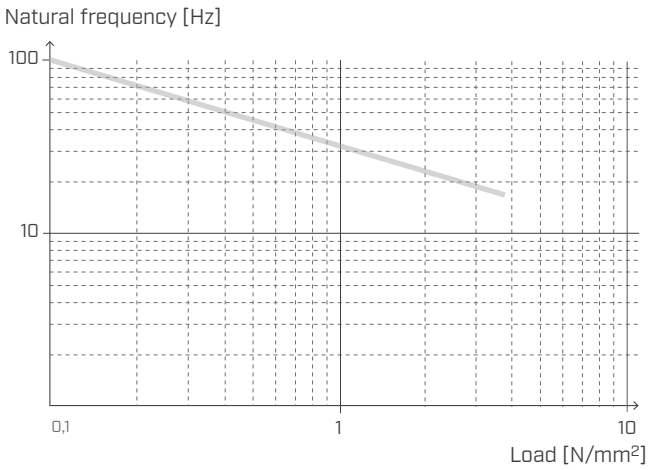


TAN δ SHEAR
DMTA

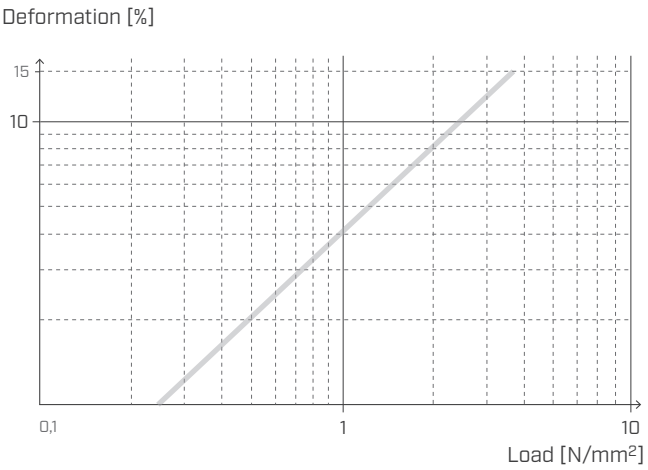
Loss factor



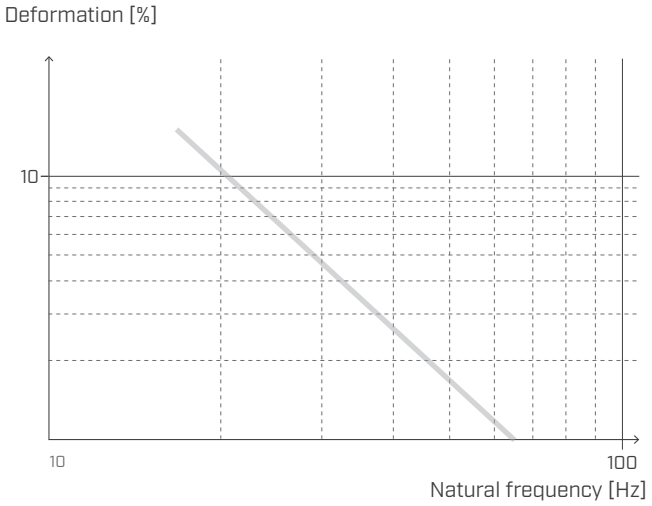
NATURAL FREQUENCY AND LOAD



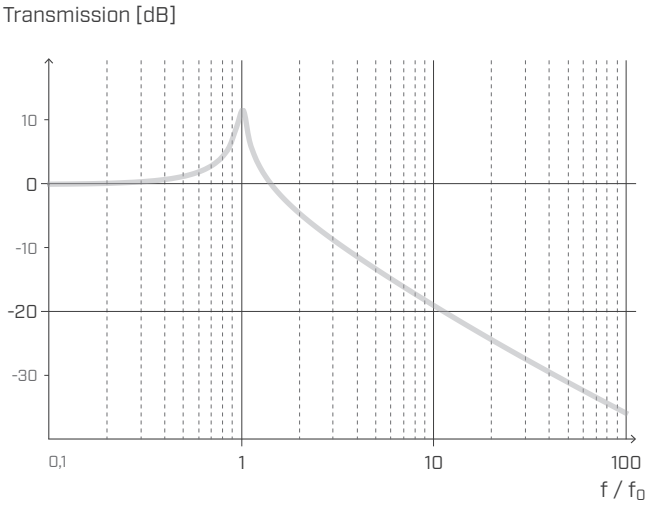
DEFORMATION AND LOAD



DEFORMATION AND NATURAL FREQUENCY

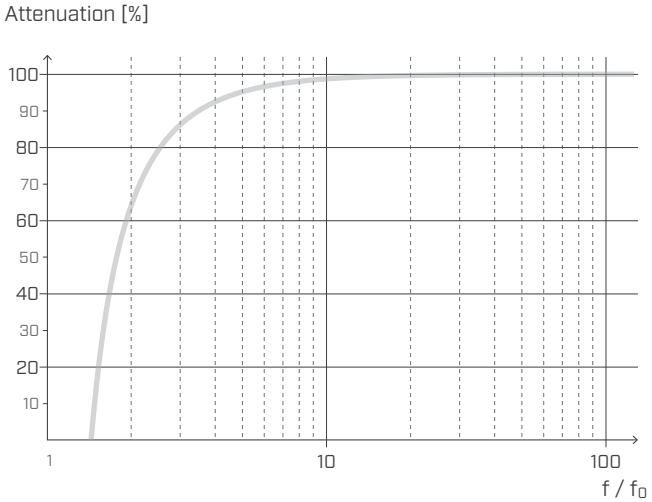


TRANSMISSIBILITY



Normalised with respect to the resonance frequency with f = 40 Hz.
Elastic module measured from compression and deformation tests at 10%.

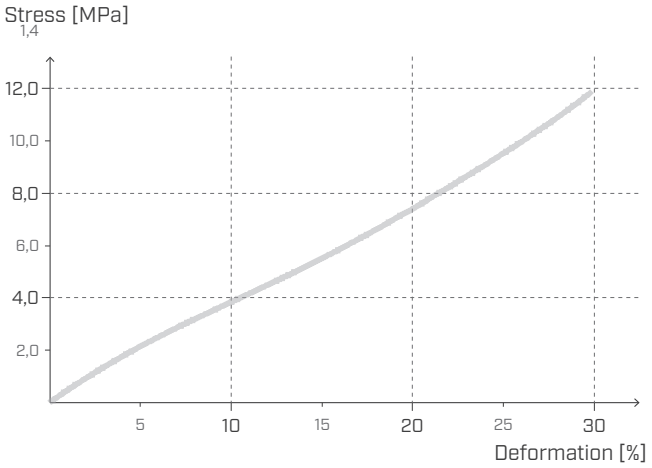
ATTENUATION



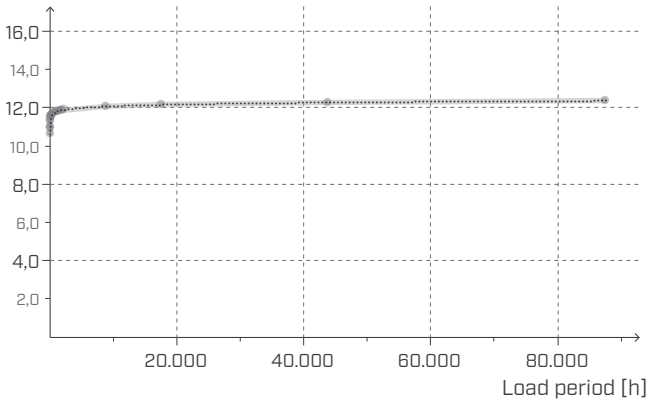
- 1,0 Hz/MPa
- 5,0 Hz/MPa
- 10,0 Hz/MPa
- 20,0 Hz/MPa
- 33,3 Hz/MPa
- 50,0 Hz/MPa

90 SHORE

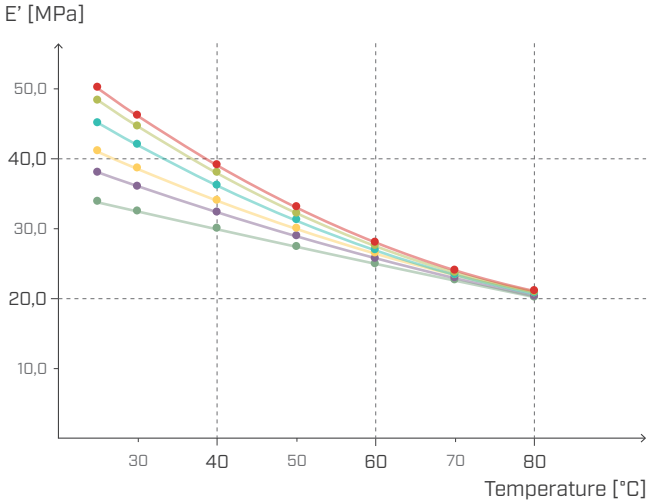
STRESS | DEFORMATION
COMPRESSION



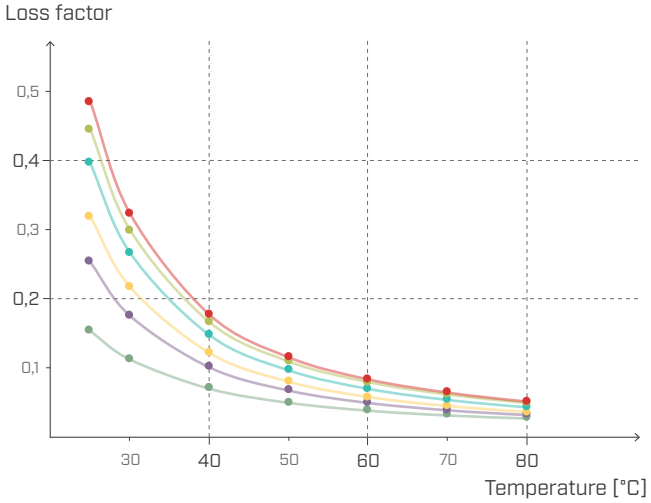
CREEP
COMPRESSION



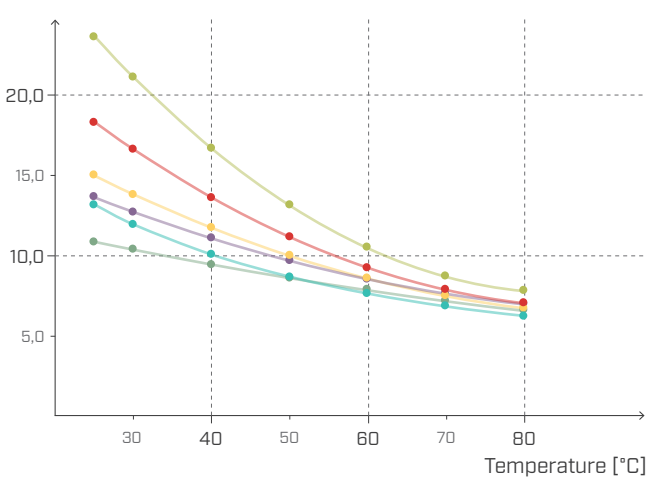
DYNAMIC ELASTIC MODULUS E'
DMTA



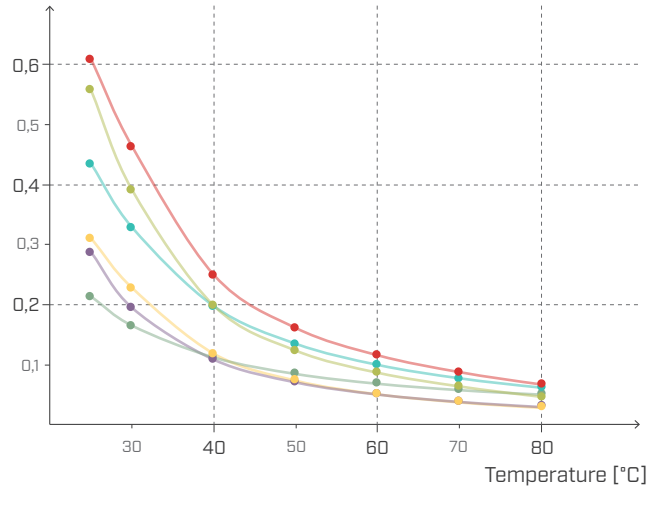
TAN δ UNDER STRESS
DMTA



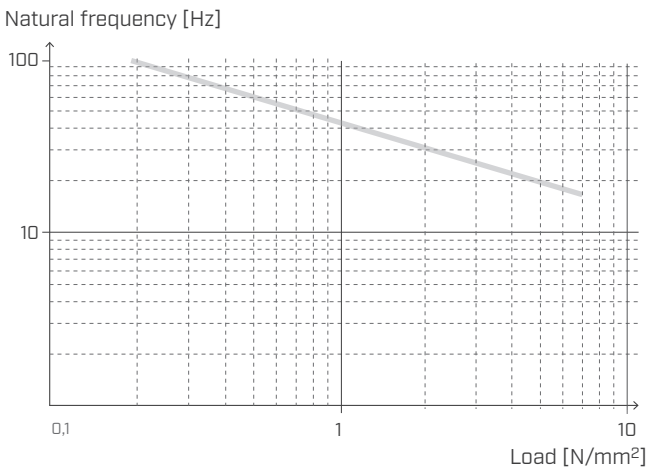
DYNAMIC ELASTIC MODULUS G'
DMTA



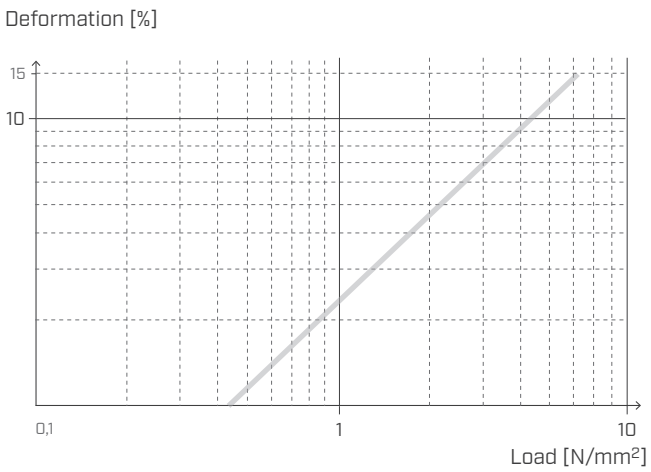
TAN δ SHEAR
DMTA



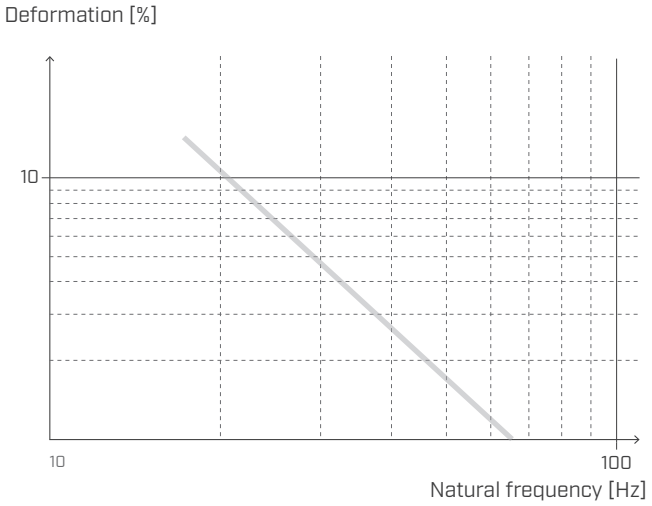
NATURAL FREQUENCY AND LOAD



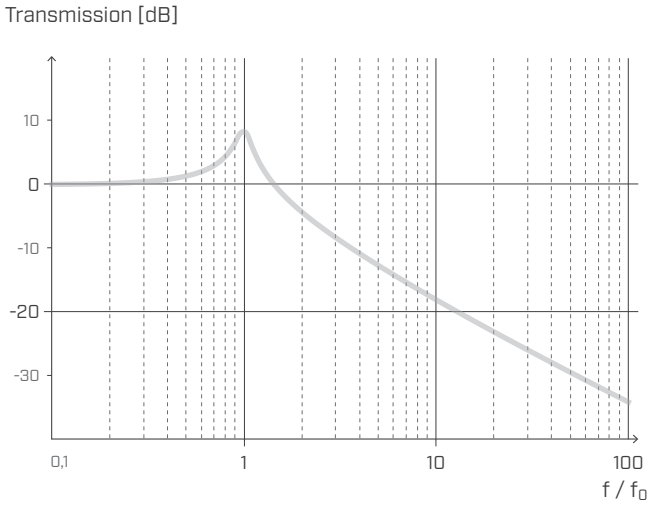
DEFORMATION AND LOAD



DEFORMATION AND NATURAL FREQUENCY

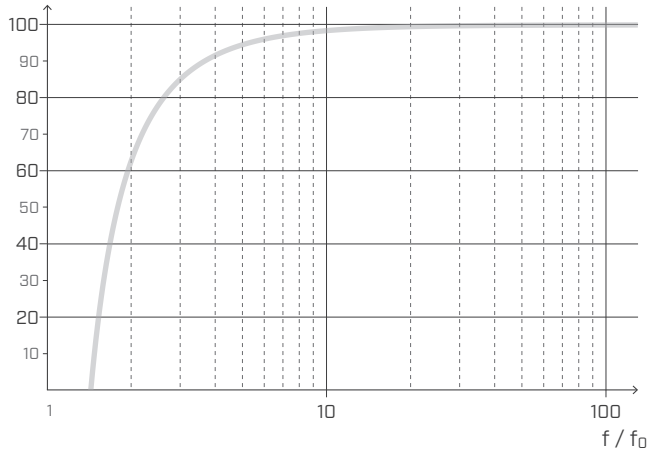


TRANSMISSIBILITY



Normalised with respect to the resonance frequency with f = 40 Hz.
Elastic module measured from compression and deformation tests at 10%.

ATTENUATION



- 1,0 Hz/MPa
- 5,0 Hz/MPa
- 10,0 Hz/MPa
- 20,0 Hz/MPa
- 33,3 Hz/MPa
- 50,0 Hz/MPa