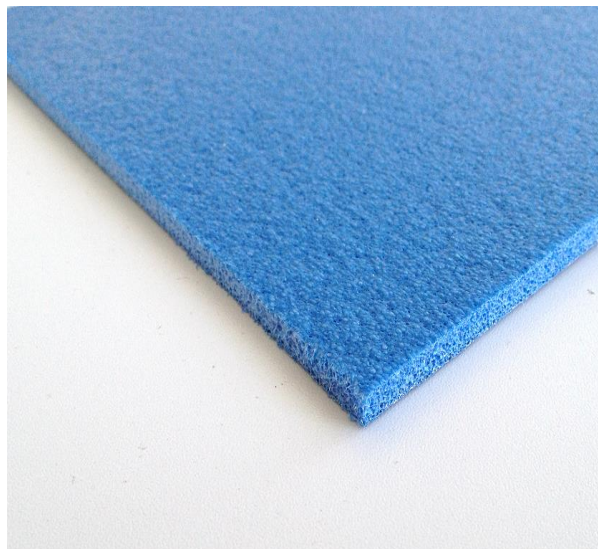


PRODUCT DESCRIPTION AND APPLICATION

ARCO MANT is an impact noise system realized using a special blend of Ethylene-Propylene-Diene-Monomer and Polythene. The thicknesses available are 5.0 and 9.0 mm. The product is 100% recyclable, it is rot-resistant, it is not water-soluble, it is not irritating to skin contact, eyes and the respiratory system. Basically it is a subflooring system applied in the new buildings, according to the canons of design and applications of the "floating screed".



ACOUSTIC SYSTEM

GENERAL INFORMATION AND ADVICE

The impact noise insulation [L'_{nW}/L'_{nTW}] will be obtained using ARCO SOLAIO, a product by ARCOACUSTICA Company. The artefact has dynamic stiffness (s') 31.5 and 21.9 MN/m³, compression stress (CV₁₅) 20.0 kPa, impact noise reduction (ΔLw) 27.0 and 29.3 dB and Young modulus in compression ($E_{secante}$) 0.03 N/mm². The system implementation will have to be carried out in compliance with the instructions specified in installation procedure by the manufacturer.

SUMMARY OF MAIN FEATURES

Evaluation criterion	Procedure	Symbol	Mant ⁶	Mant ⁹	U.M.
Nominal thickness	IM/AL 2014	s	5.0	9.0	mm
Roll length	IM/AL 2014	L	50.0	25.0	m
Roll height	IM/AL 2014	W	150	150	cm
Surface mass	IM/AL 2014	Ms	0.25	0.68	Kg/m ²
Roll weight	IM/AL 2014	W _{ei}	18.8	25.5	kg
Density	IM/AL 2014	Mv	50.0	75.0	Kg/m ³
Thermal conductivity	EN 1606	/	1.10	1.30	mm
Creep	EN 12431	C	CP1	CP1	mm
Compressibility	ISO 3386/1	CV ₁₅	20.0	20.0	kPa
Compression stress	EN 12667 ISO 8302	λ_D	0.035	0.038	W/mK
Water vapour transmission resistance	EN 12086	μ	2000	2000	/
Product thermal resistance	ISO 13786 ISO 6946	R	0.18	0.24	m ² K/W
Static load condition	ISO 12354/2	m'	125.0	125.0	Kg/m ²

Warning: ArcoAcustica suggests the handling of the rolls in the works carried out by two people.

ACOUSTIC PROPERTY

Evaluation criterion	Procedure	Symbol	Mant ⁶	Mant ⁹	U.M.
Apparent dynamic stiffness	ISO 29052/1	s^t	31.5	21.9	MN/m ³
Airflow resistance	ISO 29053	r	>100.0	>100.0	kPa*s/m ²
Dynamic stiffness	ISO 29052/1	s'	31.5	21.9	MN/m ³
Quality factor	IM/AL 2014	Q	3.9	4.1	/
Damping factor	IM/AL 2014	ζ	25.6	24.3	%
Calculation footfall noise reduction	ISO 12354/2	ΔLw	27.0	29.3	dB
Young modulus in compression	IM/AL 2014	$E_{secante}$	0.03	0.03	N/mm ²
Young modulus in compression	IM/AL 2014	$E_{tangente}$	0.03	0.03	N/mm ²

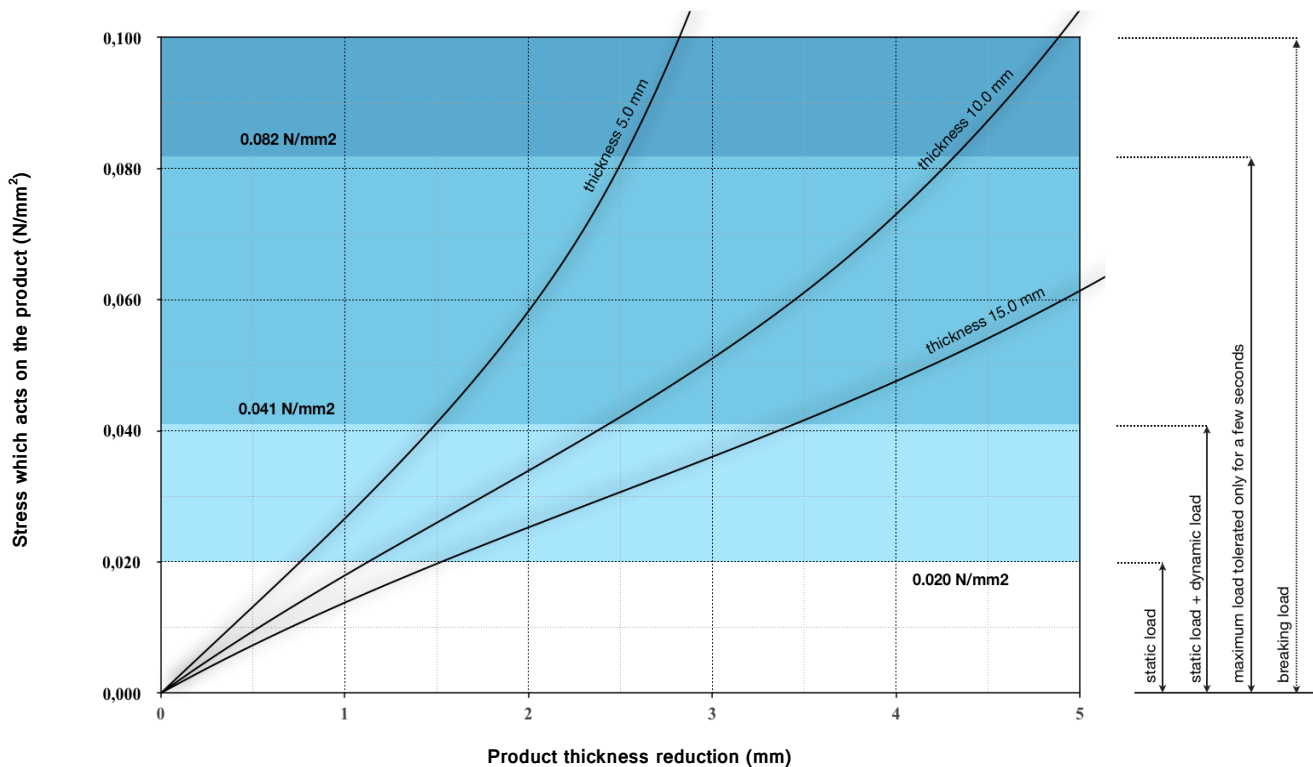
Warning: ArcoAcustica disclaims any civil or criminal liability arising from not compliant products using.

PACKING

Evaluation criterion	Mant ⁶	Mant ⁹	U.M.
Pallet size	120x100	120x100	cm
Product weight on pallet	90.0	216.0	kg
Number of meters per pallet	450.0	270.0	m ²
Number of rolls per pallet	6	6	Rolls

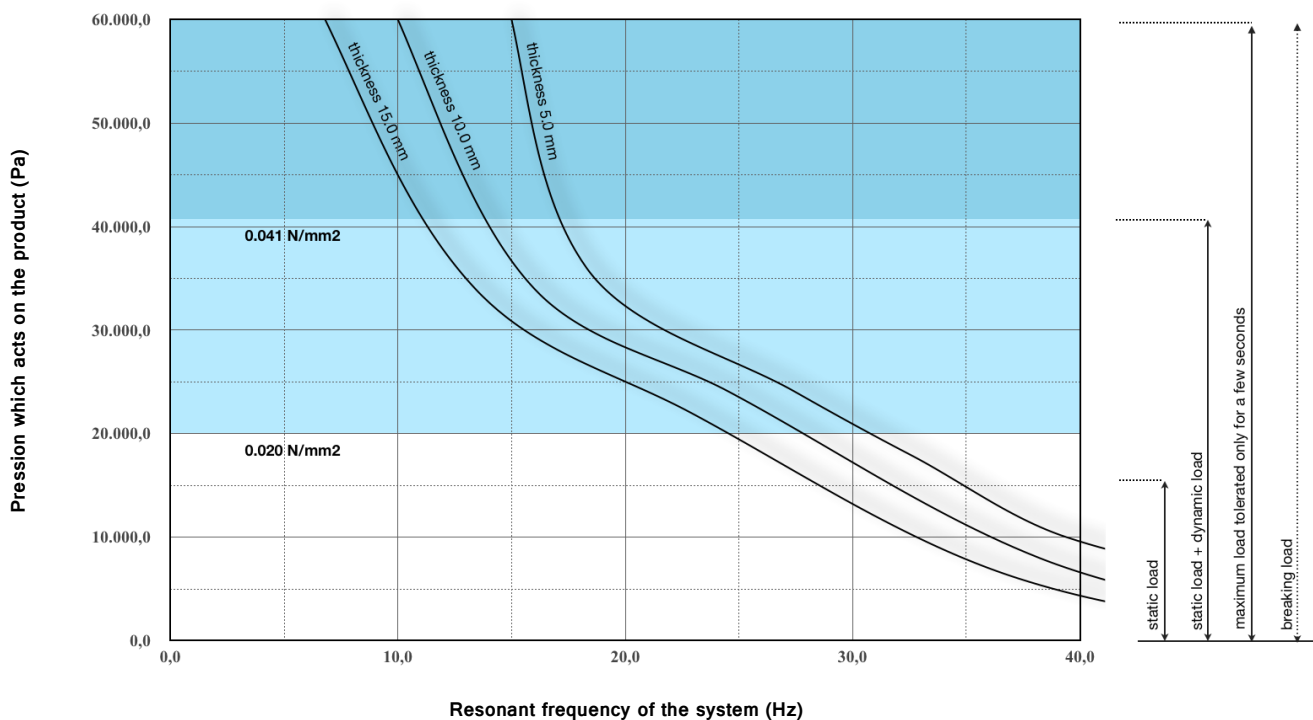
Warning: ArcoAcustica reserves to change the technical specifications of all products without prior notice.

CHARACTERISTIC STRESS FUNCTION OF DEFORMATION IN COMPRESSION



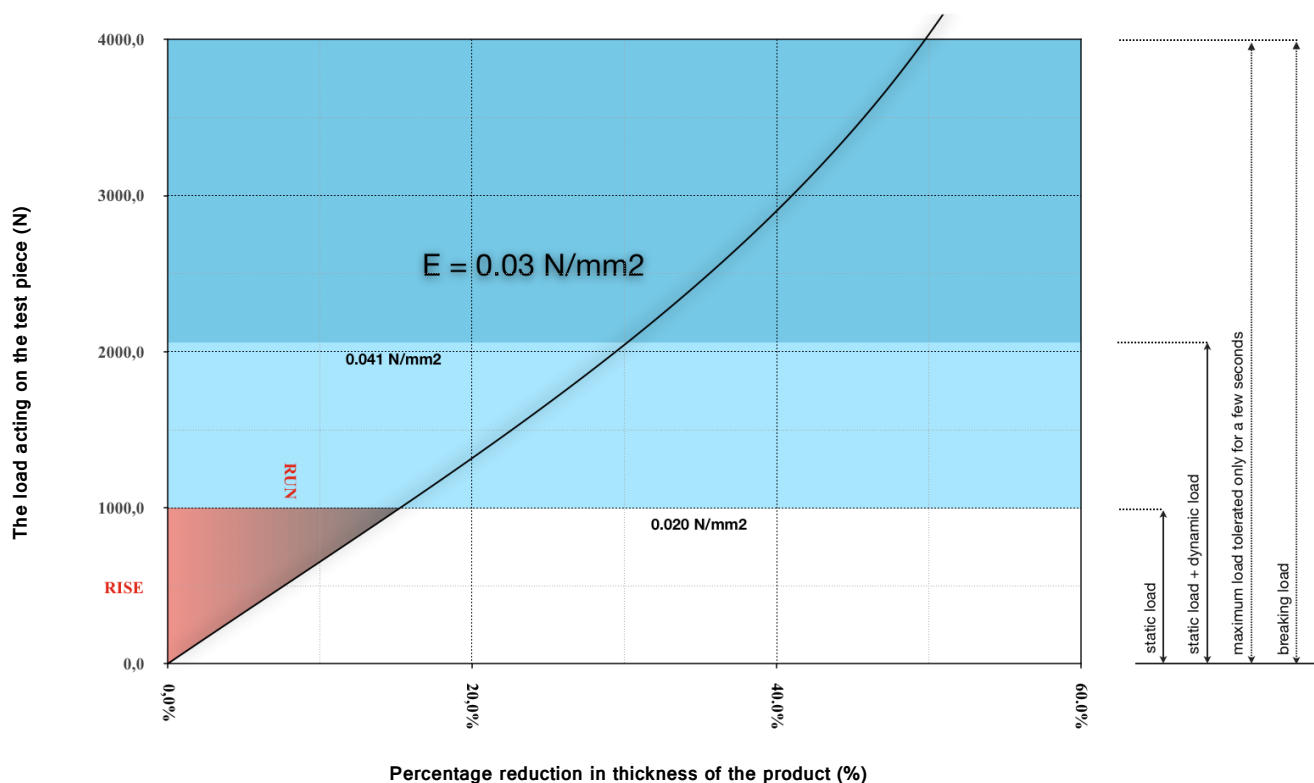
NOTE: Stress/Deformation analysis of the subfloor systems/dampers product, characterizes the own mechanical properties. The shape factor suggests the optimal load condition as the product can be subjected.

CHARACTERISTIC PRESSURE FUNCTION OF RESONANT FREQUENCY



NOTE: System's resonance frequency and shape factor in relation to the different type of thickness.

YOUNG MODULUS IN COMPRESSION (SECANT CRITERION)



NOTE: The elasticity modulus in compression is a characteristic feature of each material, it measures the force (per unit area) needed to stretch (or compress) a material sample in the mono-axial loading conditions. The Young's modulus "E" is defined as the ratio between the applied stress (RISE) and the deformation resulting (RUN), it corresponds to the slope "secant to the curve" passing through the origin and the ordinate point of RISE. This value is precautionary and well represents the elastic behavior of the polyurethane in the field of ordinary work "static load".