



SINCE
1950

ENVIZOL TRAIN FR AL

Thermally and acoustically absorbing board



- Characteristics:** Nonwoven thermobonded textile laminated with AL foil for thermal insulation and acoustic applications
- Material content:** 10 % PES Bico
90 % Recycled polymer fibers
AL / Aluminium foil 30 µm
- Colour:** Grey
- Certification:** Quality Management System ISO 9001, ISO 14001, ISO 45001 and ISO 50001
- Fire classification:** ČSN EN 45545-2+A1 (HL1, HL2 a HL3)
- Function:**



THERMAL
INSULATION



ACOUSTIC
ABSORPTION

Use:



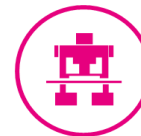
ROLLING STOCK



BUS



TRAM



INDUSTRIAL
EQUIPMENTS

Material Specification

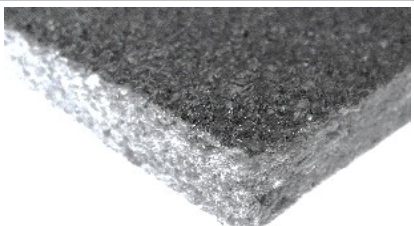
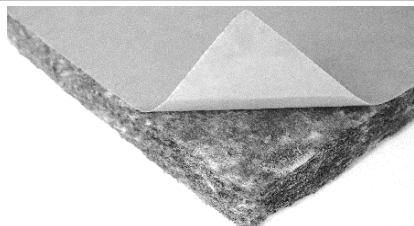
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No.: I-007-3

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Technical parameters

	ENVIZOL TRAIN	TL20	TL25	TL30	TL35	TL40	TL50	TL60	Tolerance	
PHYSICAL PROPERTIES										
Mass per unit area / EN ISO 9864	g/m ²	700	875	1050	1225	1400	1750	2100		
Mass of fully saturated board	kg/m ³	35	35	35	35	35	35	35		
Thickness 0,5 kPa / EN ISO 9073-2	mm	20	25	30	35	40	50	60	± 15 %	
SOUND INSULATION PROPERTIES										
Sound absorption / ČSN ISO 10534-1	Attachment No. 1									
THERMAL INSULATION PROPERTIES										
Thermal conductivity - laboratory humidity / ČSN EN 12667	W/m.K	0,035	0,035	0,035	0,035	0,035	0,035	0,035	± 20 %	
FIRE CLASSIFICATION										
ČSN EN 45545-2+A1	R1, R7 and R17	HL3	HL3	HL3	HL3	HL3	HL3	HL3		
Critical heat flux at extinguishment ≥ 20 kW/m ² / ISO 5658-2 / ECE Regulation No. 118	M2 a M3 6.2.2, 6.2.3, 6.2.4	X	X	X	X	X	X	X		
OPTIONAL SURFACE FINISHING										
Type:										
			DR - Drainage mat 10 mm a 400 g/m ²				SA - self-adhesive acrylic layer 100 g/m ²			
Finishing SA 90° peel strength / EN 1939/PSTC101 After 24 H	Steel	N/25 mm	28	28	28	28	28	28		
	ABS		27	27	27	27	27	27		
	PP		5	5	5	5	5	5		
DIMENSIONS										
Delivered format	board									
Width	cm	250						± 2 cm		
Length	cm	100						± 2 cm		
PACKAGING AND STORAGE										
Storage	In covered, clean and dry spaces									

The data was measured at the laboratories of RETEX a.s. / CZ, VUT Brno / CZ, Building Testing and Research Institute Bratislava / SK and CZ testing institute s.r.o. / CZ.

All dates are for informative purpose only - this Specification does not substitute Declaration of conformity



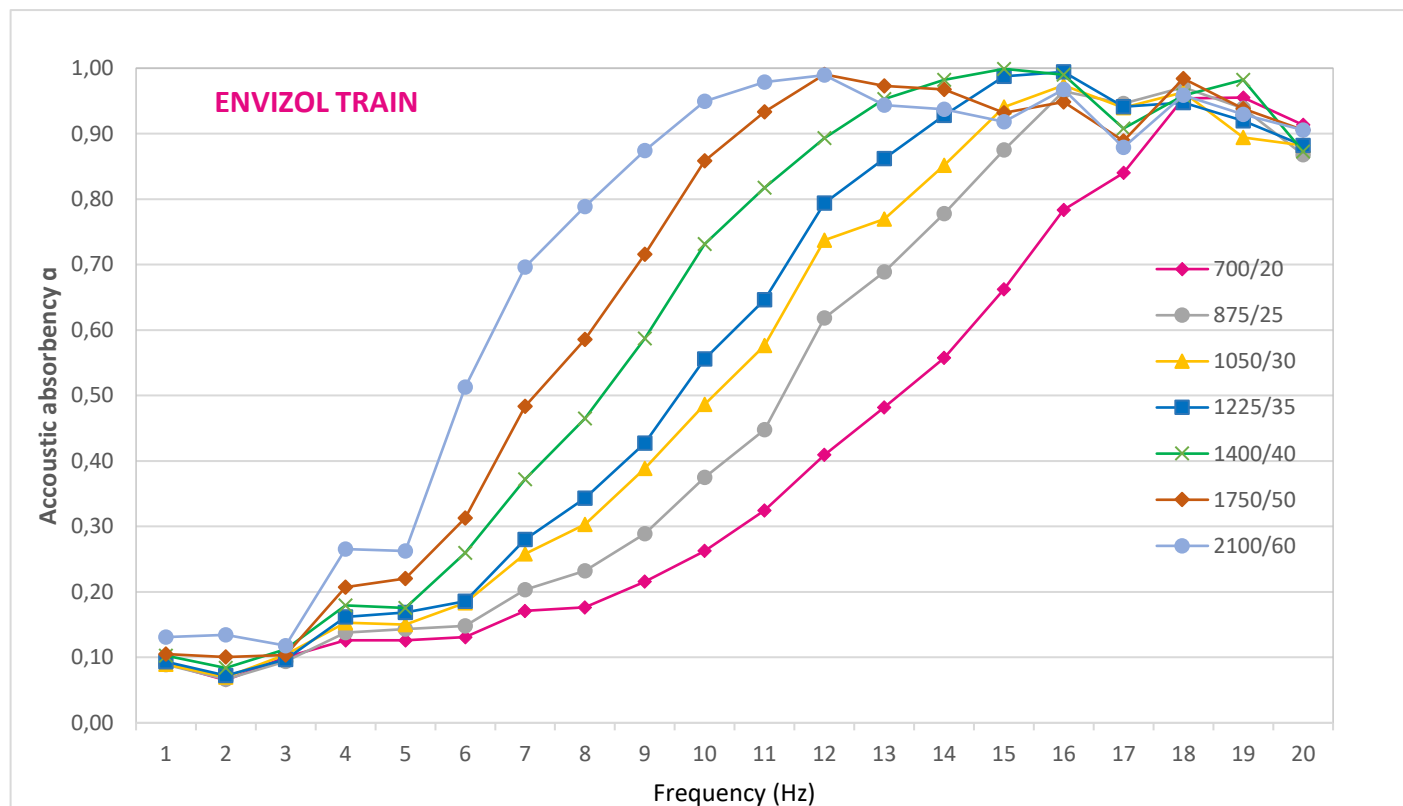
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TRADITIONAL QUALITY NONWOVENS

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Acoustic absorption / ČSN ISO 10534-1



f [Hz]	700/20	875/25	1050/30	1225/35	1400/40	1750/50	2100/60
100	0,09	0,09	0,09	0,09	0,10	0,11	0,13
125	0,06	0,07	0,07	0,07	0,08	0,10	0,13
160	0,10	0,09	0,10	0,10	0,11	0,10	0,12
200	0,13	0,14	0,15	0,16	0,18	0,21	0,27
250	0,13	0,14	0,15	0,17	0,18	0,22	0,26
315	0,13	0,15	0,18	0,19	0,26	0,31	0,51
400	0,17	0,20	0,26	0,28	0,37	0,48	0,70
500	0,18	0,23	0,30	0,34	0,46	0,59	0,79
630	0,22	0,29	0,39	0,43	0,59	0,72	0,87
800	0,26	0,37	0,49	0,56	0,73	0,86	0,95
1000	0,32	0,45	0,58	0,65	0,82	0,93	0,98
1250	0,41	0,62	0,74	0,79	0,89	0,99	0,99
1600	0,48	0,69	0,77	0,86	0,95	0,97	0,94
2000	0,56	0,78	0,85	0,93	0,98	0,97	0,94
2500	0,66	0,88	0,94	0,99	1,00	0,93	0,92
3150	0,78	0,96	0,97	0,99	0,99	0,95	0,97
4000	0,84	0,95	0,94	0,94	0,91	0,89	0,88
5000	0,95	0,97	0,96	0,95	0,96	0,98	0,96
6000	0,96	0,94	0,89	0,92	0,98	0,94	0,93
6300	0,91	0,87	0,88	0,88	0,87	0,91	0,91