



ARMAFLEX RAIL SD

FIRST-CLASS IN TRAINS



- First flexible closed cell insulation that meets hazard level 2 according to EN45545
- Effectively prevents moisture penetration
- High flexibility ensures ease of installation
- Reduced risk of mold and mildew contributes to an improved indoor air quality



Technical Data - Armaflex Rail SD

Brief description	Highly-flexible, closed-cell insulation foam with improved fire retardant properties, low smoke generation and in-built Microban® antimicrobial protection for railway vehicles.
Material type	Elastomeric foam based rubber; manufactured with Armaprene® patented technology; US patent no. 8 163 811, EU patent no. 2 261 305
Colour	Blue
Material Special Information	The pressure-sensitive adhesive coating is based on modified acrylate basis with mesh structure and covered with polyethylene foil. Traces of silicon can be found on the protection paper/foil used to protect self-adhesive closures.
Applications	Insulation / protection for air ducts and pipes (incl. elbows, fittings, flanges etc.) of air-conditioning / refrigeration to prevent condensation
Remarks	Armaflex® Rail SD is not designed for transparent insulation applications (exposed to sun light) and is not UV stable.

Property	Value/Assessment	Test ¹	Super- vision ²	Special Remark	
Temperature Range					
Temperature Range	max. service temperature	+ 110 °C (+ 85 °C if sheet or tape is glued to the object with its whole surface)	EU 5654	o/●	Tested acc.to EN 14706, EN 14707 and EN 14304
	min. service temperature	-50 °C			
Thermal Conductivity					
Thermal Conductivity	ϑ_m +/-0 °C	$\lambda =$	EU 5654	o/●	Declared acc. to EN ISO 13787 Tested acc. to EN 12667 EN ISO 8497
	$\lambda \leq 0,040$ W/(m · K)	$[40 + 0,1 \cdot \vartheta_m + 0,0009 \cdot \vartheta_m^2]/1000$			
Water vapour diffusion resistance					
Water vapour diffusion resistance	μ	\geq 5.000	EU 5654	o/●	Tested acc. to EN 12086 and EN 13469
Fire performance					
Reaction to fire	insulation thickness 6 mm-19 mm	HL2, R1	EU 6963 EU 6964 EU 6965 EU 6966 EU 6967, EU 6968 EU 7366	o/●	Declared acc. to(S EN 45545-2
	insulation thickness 25 mm	HL2, R7			
	3 mm sheets & tape	HL3, R1			
	Certificate of Conformity with EN 45545-2	product conforms with declared hazard levels			
Other Fire Class	Russian Federation Certificate of conformity	G1, V1, D2, T2	RUS 6866		Declared acc to: GOST 12.1.044-89, only for specified products
	Burning behavior for the use in motor vehicles (ECE Regulations)	Passed Annex 6,7,8,9	EU 7368, 7369		ECE R-118
	NFPA 130 American fire test to railway components	$I_s \leq 25$ $D_s(4,0) \leq 100$	EU 5955 EU 5956		Classified acc to NFPA 130:2014 Tested acc to ASTM E 162:20 ASTM E 662:2012
	Fire behaviour and fire side effects	S3,ST2, SR2, FED < 1 (S4 for 3 mm product)	D 7308, 7309, 7310, 7311, 7312, 7313, 7314, 7369		Classified acc to DIN 5510-2 Tested acc to DIN 54837, ISO 5659-2
Practical Fire Behaviour	Self-extinguishing, does not drip, does not spread flames				
Other technical features					
Dimensions and tolerances	In accordance with EN 14304, table 1; Tested acc. to EN 822, EN 823, EN 13467		EU 5654	o/●	
Biological / chemical behaviour	Fungal Resistance, no fungal growth according to tets Tested according to ASTM G21		EU 7134	o	
UV resistance	Protection against UV-radiation is necessary, see TB 142				
Health aspects	Fulfill hygienically requirements of Russian Rail Industry		RUS 6567		
Storage & Shelf life	Self-adhesive tapes, self-adhesive sheets: 1 year Can be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0 °C – 35 °C).				

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*1 Further documents such as test certificates, approvals and the like can be requested using the registration number given.

*2 ●: Official supervision by independent institutes and /or test authorities
○: Own in-factory quality monitoring

All data and technical information are based on results achieved under typical application conditions. Recipients of this information should, in their own interest and responsibility, clarify with us in due time whether or not the data and information apply to the intended application area. Installation instructions are available in our Armaflex installation manual. Please consult our Customer Service Center before insulating stainless steels.