

THE FIRST CLOSED CELL INSULATION FOR INCREASED FIRE SAFETY IN RAILWAY VEHICLES



Armaflex[®]
RailSD

- Fire flexible closed cell insulation
- High-tech insulation
- Microban antimicrobial protection
- Low smoke density
- Reduced risk of mold and mildew
- Minimum energy loss

INCREASED FIRE SAFETY IN RAILWAY VEHICLES

- Fire flexible closed cell insulation that meets hazard level 2 according to EN45545
- High-tech insulation with built-in fire protection for railway vehicles
- With Microban antimicrobial product protection
- Low smoke density, superior fire behaviour
- Reduced risk of mold and mildew contributes to an improved indoor air quality
- Minimum energy loss through low thermal conductivity

TECHNICAL DATA - ARMAFLEX RAIL SD

Brief description	Highly-flexible, closed-cell insulation foam for railway vehicles, with improved fire retardant properties, low smoke generation and in-built Microban® antimicrobial protection.
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 protective paper/foil used on the self-adhesive closures.
Applications	Insulation / protection for air-conditioning and refrigeration air ducts and pipes (incl. elbows, fitting, flanges etc.) to prevent condensation
Remarks	Armaflex Rail SD should not be exposed to sun light and is not UV resistant.

Property	Value/Assessment			Test *1	Special Remarks
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 5315	Tested acc. to EN 14706, EN 14707 and EN 14304
	Min. service temperature	- 50 °C			
Thermal Conductivity					
Thermal Conductivity	gm +/-0	°C	λ=	EU 5315	Declared acc. to EN ISO 13787 Tested acc. to EN 12667 EN ISO 8497
	λ ≤ 0,040	W/(m · K)	[40 + 0,1 · gm + 0,0009 · gm²] / 1000		
Water vapour diffusion resistance					
Water vapour diffusion resistance	μ ≤ 5,000			EU 5315	Tested acc. to EN 12086 and EN 13469
Fire performance					
Reaction to fire					
Other fire class	Hazard Level	HL2, RL		D 5505 EU 5327	Classified acc. to EN 45545-2
Practical fire behaviour	Self-extinguishing, does not drip, does not spread flames				
Dimensions and tolerances	In accordance with EN 14304, table 1			EU 5315	Tested acc. to EN 822, EN 823, EN 13467
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)

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

ARMAFLEX RAIL SD TUBES

Length 2.0 m, Colour Blue

Pipe max. Outside - Ø (mm)	Inner Ø min/ max mm (tube)	9,0 mm	
		Code	m/carton
12	13.0 - 14.5	RA-09X012	192
15	16.0 - 17.5	RA-09X015	164
18	19.0 - 20.5	RA-09X018	150
22	23.0 - 24.5	RA-09X022	122
28	29.0 - 30.5	RA-09X028	90
35	36.0 - 37.5	RA-09X035	68
42	43.0 - 44.5	RA-09X042	56

Length tolerance for tubes: ± 1,5 %
Thickness tolerance: 9 mm ± 1,5 mm

ARMAFLEX RAIL SD CONTINUOUS SHEETS (ROLLS)

Code	Thickness [mm]	Roll length [m]	m ² /carton
RA-03-99/E	3.0	30	30
RA-06-99/E	6.0	15	15
RA-09-99/E	9.0	10	10
RA-13-99/E	13.0	8	8
RA-19-99/E	19.0	5	5

Length tolerance for tubes: ± 1,5 %
Thickness tolerance: 3 - 6 mm ± 1,0 mm
9 - 19 mm ± 1,5 mm

ARMAFLEX RAIL SD CONTINUOUS SHEETS SELF-ADHESIVE (ROLLS)

Code	Thickness [mm]	Roll length [m]	m ² /carton
RA-03-99/EA	3.0	30	30
RA-06-99/EA	6.0	15	15
RA-09-99/EA	9.0	10	10
RA-13-99/EA	13.0	8	8
RA-19-99/EA	19.0	5	5

Length tolerance for sheets: ± 1,5 %
Thickness tolerance for sheets: 3 - 6 mm ± 1,0 mm
9 - 19 mm ± 1,5 mm

ARMAFLEX RAIL SD SELF-ADHESIVE TAPES

Code	Width [mm]	Length [m]	Thickness [mm]	Rolls/carton
RA-TAPE	50.0	15	3	12

ARMAFLEX RAIL SD ADHESIVE

Code	Description	Pieces/carton
AHU-700/1,0 •	Armaflex Ultima Adhesive 700, blue one component adhesive, 1 litre cans	12
AHU-RS850/0,7 •	Armaflex Ultima Adhesive RS850, reduced solvent, non-drip blue gel form adhesive, 0.75 litre cans	6

• Not a stock item. Delivery on request.

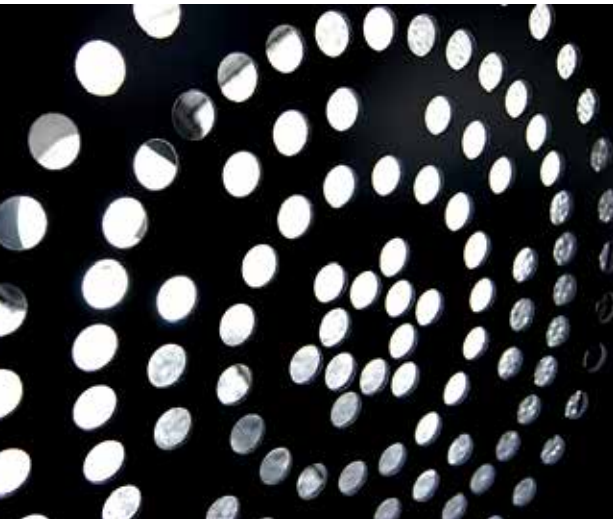
OUR CAPABILITIES, SERVICE & MATERIALS

CB Frost draws from a wide range of materials and converting techniques allowing us to offer an exact custom made solution for your application. Careful selection of the ideal material is helped with our ability to offer samples for test.

We can produce production batch quantities from small/medium to volume scheduled work.



"Our range of sheet and roll stock materials include; Neoprene, EPDM, Natural (including synthetic blends of sponges), Polyethylene, Polyurethanes and Silicones"



Capabilities and Product Offerings

- Tape/Strip – Plain and Adhesive backed
- Gaskets – Plain and Adhesive backed
- Rubber mouldings
- Sponge and solid rubber profiles
- Fabrication
- Specialist insulation products
- Approved stockist of the Bostik range of adhesives and sealants

Why use CB Frost

- Fast and reliable turnaround
- Quality of product
- Competitive pricing
- Excellent customer and technical support
- A wide range of quality product

Key Personnel

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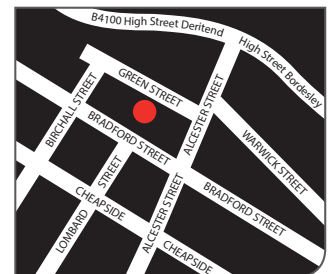
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NEED SAMPLES AND INFORMATION?
Samples, technical information and data sheets about our products are available upon request.

(Map not drawn to scale)