

Datasheet for Redusoft DI 150 FR / EN45545-2

Soft elastic seal for rail vehicles with EN45545-2 certificate



Product information

The Redusoft DI 150 FR sealing tape fulfills the requirements of European standard EN45545-2 in category HL 3 for R22/R23. It is a permanently elastic, fine-pored, impregnated flexible polyurethane foam.

Function / areas of application

Redusoft DI 150 FR fulfills high fire protection requirements and was specially developed for the rail vehicle, automotive and electrical industries. The gasket is primarily used for heat and sound insulation, vibration damping and protection against dust, moisture and draughts.

Technical data Fire resistance*

Specifications	EN 45545-2	R22/R23 – HL3
	EN ISO 4589-2	LOI > 32 %
	EN ISO 5659-1	Ds max < 150
	NF X70-100-1 & 2	CITG < 0.75
	TB/T 3237:2010	passed
	GB/T2406.2:2009	> 32 %
	UIC 564-2	class A
	GB/T 8323.2-2008	passed
	EN 13501-2	corresponds to class E
	DIN 75200	≤ 100 mm / min.
	FMVSS 302	SE/NBR

* For information on the tested thicknesses, see the respective fire protection certificate.

General technical data^{1/3}

Impregnation	modified acrylate dispersion	
Material colour	black	
Raw density	150 kg/m ³ +/- 10 %	EN ISO 845
Temperature resistance	- 40 °C to +100 °C, briefly up to 130 °C	
Elongation at break	> 150 %	EN ISO 1798
Tensile strength	> 100 kPa	DIN EN ISO 1798
Compression hardness at 40%	5 kPa +/- 15 %	EN ISO 3386
Delivery form	punched parts, blanks, sheets with or without adhesive. Pre-compressed rolls, self-adhesive on one side.	
Storability	12 months (at temperatures from +5 °C to +35 °C, dry, dust-free, without exposure to direct sunlight or heat sources). The ability to expand decreases over time.	
Environment and disposal	residues can be disposed of with household waste. Local regulations must be observed.	

¹The technical data may change with the degree of compression.

Application

Tools:

For installation of the tapes get a measuring tape, knife / scissors and a spatula.

Surface treatment of the joints:

Dirt, oil, fat, old sealing material and mortar residues have to be removed from the joint flanks.

Determination of the dimensions of the tape:

Measure the window construction depth and the joint width (including tolerances and movement of the joint) and choose the correct dimension of the tape. For tight joints, it is advantageous to moisten the tape.

Preparation of the tape (the side marked in colour showing to the middle of the room):

By cropping the tape please note the addition of at least 1 or 2 cm per meter. Cut off the piece of the beginning and the end of the roll. Remove the cover of the adhesive film and stick the pre-compressed tape on top of the clean and dry window frame.

Start at the side of the frame with sticking up the tape on the bottom and then work upwards. Push the adhesive side tight against the component. It should be ensured that the tape is not elongated. As the tape changes its length after some time to the original length, light upsetting is advisable - otherwise leaks could arise. Press the tape at the upper frame against the horizontally bonded tape and stick out on each side along the tape the maximum of the joint width. The tape must not be applied in one piece around the frame. For safety reasons the tape must be laid offset at least 2 mm on both sides inwards from the leading edge of the joint.

Abutting points of the tape:

The individual tape lengths may be extended during the application by compressing the tailored tapes against each other. Joints or imperfections can be compensated with a suitable sealant.

Tape dimensions/delivery form² (further dimensions on request)

Dimension (mm)	Original tape height (mm)	Tape width (mm)	Roll length / Strip length (m)	Packaging unit (pcs.)
5x10	5	10	15	48
5x15	5	15	15	32
10x10	10	10	10	48
10x15	10	15	10	32
10x20	10	20	10	24
15x10	15	10	10	48
15x15	15	15	10	32
15x20	15	20	10	24
15x30	15	30	10	16
19x15	19	15	10	32
19x20	19	20	10	24
19x30	19	30	10	16
25x20	25	20	6	24
25x30	25	30	6	16
30x30	30	30	4	16
30x40	30	40	4	12
40x40	40	40	2	36
40x50	40	50	2	30
40x60	40	60	2	24
50x40	50	40	2	24
50x50	50	50	2	20
50x60	50	60	2	16

Rise-up-behavior:

Only the delayed decompression enables the installation. The expansion-behavior of the tape depends on the joint and the ambient temperature. At higher temperatures, the material returns relatively fast (the component must be installed quickly). Therefore storage >20°C should be avoided over a prolonged period (the tape should not be stored directly in the sun). Due to the acrylic filled cells the height of the decompressed tape might be lower than the original height of the tape according dimensions.

At lower temperatures, we recommend to store the material at room temperature of about 20°C at least for 24 hours. The immediate expansion of the tape can be accelerated by heating with a hot air gun (in pivoting movements).

Remarks:

¹The correct functioning of the tape can be achieved only under the condition if the tape is installed in accordance with the latest processing instructions, or has not applied and not been exposed to any unforeseeable influences. Decomposition caused by external effects is not covered by the warranty. Decisive for the acceptance of a possible warranty claim: The professional processing by said standards and compliance with the processing instructions. Standing water or permanent water wetting cannot be permanently compensated by the product and is not a reason for complaint/claim. All commitments are relating to the use of the product at the Central European climate conditions. Before mounting read the manufacturer's processing instructions. If the manual is not available, contact the manufacturer or reseller.

²Structural movements and temperature-dependent changes in length are to be added to the existing joint widths. Dimensional tolerances according to DIN 7715 P3.

³according to manufacturer conditions.