



TECHNICAL GUIDE · MULTIFOAM PRO 5145

Window and façade frame insulation

Seal the gap between window or façade frames and the wall for air, wind and water tightness, sound and heat insulation, and a stiffer frame. For architects, builders and façade contractors.

B2 DIN 4102

750 ml

Made in Germany by MAPURA GmbH

10–12 mm

Gap all round the frame

61 dB

Sound insulation $R_{(st,w)}$

0.0381

Thermal conductivity, W/m·K

165+

Organisations served in India and Bhutan

01 What MULTIFOAM PRO 5145 does

MULTIFOAM PRO 5145 is a one-component, moisture-curing polyurethane construction foam, made in Germany by MAPURA GmbH and imported for India by Milestone (India) Corp. It is applied in the gap between the wall opening and a window or façade frame. In contact with moisture it expands to fill the cavity, bonds to both surfaces, seals the air and water paths and cures to an elastic, closed foam that moves with the frame.

Window and façade frames still need mechanical anchors. MULTIFOAM is the seal and the insulation, not the fixing.

02 Why the gap matters

The gap between a window or curtain-wall frame and the wall is the weakest point of the envelope. On many sites it is packed with whatever is at hand (mortar scraps, broken brick, offcuts) or left with voids, and then finished with a thin bead of silicone on the face.

Mortar is rigid and cracks as the frame moves with heat. Silicone seals only the visible line and leaves the cavity behind the frame open. Air, rain, noise, heat and insects get in through that cavity, and the defects show up after handover.

Plan the gap at design and formwork stage. The frame goes in with 10–12 mm all round. Where the opening was not planned for it, the gap on site is often only a few millimetres, and it cannot be added once the structure is cast.



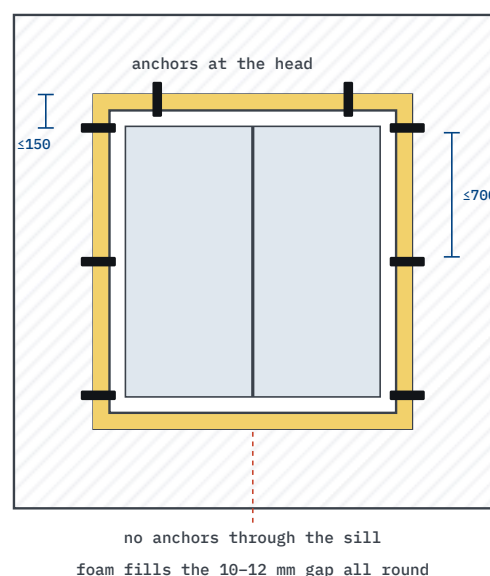
03 Effect of the gap on the joint

Gap	Fill	Bond and strength	Seal
Under 5 mm	Incomplete, voids remain	Small bond area, low strength	Poor, micro-gaps
6–8 mm	Partial	Reduced	Moderate
10–12 mm	Complete, even fill	Full: 7 ± 2 N/cm ² compression, 10 ± 2 tensile, 5 ± 2 shear (24 h)	Complete seal

04 Where the anchors go

Window and façade frames are screwed into the cured wall as the window or façade system specifies. MULTIFOAM is the seal and the insulation, not the fixing.

- **Jambs and head:** anchored. Typically no more than 700 mm apart, the first anchor within 150 mm of each corner.
- **Sill:** not screwed through the bottom track or sill face. With fixing on three sides, the bottom need not be screwed.
- **Why:** screw heads in the bottom track are the root cause of window leakage.
- **All round:** foam fills the 10–12 mm gap on all four sides.



Elevation. Anchors on both jambs and the head (spacing in mm, typical); none through the sill.

05 Good practice on every job

- Foam into stone masonry, well-cured brick or block, RCC or plastered walls: not into gypsum or POP.
- Use the PURATOOL 4110 dispenser gun for control and less waste.
- The foam does not stick to PE, PP, silicone or Teflon.
- Surfaces firm, clean and free of dust, oil, grease and Black Japan paint.
- Fresh foam cleans off with PU cleaner; cured foam only mechanically.
- Where a fire-rated seal is required, use PURAFOAM FIRE as part of a tested fire-resistant system: MULTIFOAM PRO 5145 is class B2, not a fire-stop product.



06 Seven steps

1 Plan a 10–12 mm gap

Set the frame in a well-cured plastered wall with shims of 10–12 mm all round. Not into POP or gypsum plaster.

2 Set it true

Check plumb, level and both diagonals with a spirit level before you screw.

Any misalignment is locked in once the foam cures.

3 Anchor the jambs and head

Screw external frames into the cured wall as the window or façade system specifies.

Typical: no more than 700 mm apart, the first anchor within 150 mm of each corner.

4 Leave the sill unscrewed

Don't screw through the bottom track or sill face. With fixing on three sides, the bottom need not be screwed.

Screw heads in the bottom track are the root cause of window leakage.

5 Mask, clean and fill

Mask everything except the bonding face and blow out the dust. Shake the can about 20 times, then fill from the bottom up to about 80–85 %.

Foam in layers if the gap is deeper than 50 mm. In very hot weather, sprinkle water on the wall first.

6 Let it cure

5–8 hours, depending on humidity. Don't move the frame.

7 Trim and cover

Slice off the excess any time from the next day, peel off the masking, and cover the foam: it is not UV-stable.

Inside: architrave, putty or gypsum. Outside: elastomeric paint or architrave, and polysulphide sealant at the sill.

07 Used on site

Used by Hiranandani, Rustomjee, K. Raheja Corp and leading façade contractors.

“The results exceeded our expectations. The product demonstrated remarkable strength, durability, consistency, and ease of application.”

Cyrus Pithawalla, Former Director, Real Estate Core Team, Hiranandani Group



08 Key data

Fire classification	E (EN 13501-1) / B2 (DIN 4102); not a fire-stop
Sound insulation R(st,w)	61 dB
Thermal conductivity	0.0381 W/m·K
Water absorption	< 2 vol-%
Vapour permeability	$\mu = 19$
Service temperature, cured foam	-40 to +80 °C
Compression / tensile / shear strength (24 h)	7 ±2 / 10 ±2 / 5 ±2 N/cm ²
Expansion	30–100 %
Curing	5–8 h, depending on humidity; cut excess from the next day
Yield per 750 ml can	52 ±3 L
Coverage, window or façade frame (section 50 × 65, gap 10 mm)	80–100 running ft per can
VOC content	0.117 kg per 750 ml can
Storage	Dry, unopened, +15 to +25 °C; shelf life 24 months

Product data from MAPURA TDS edition 07/2025, at 23 °C / 50 % r.h., non-aged foam. Coverage and VOC are Milestone figures; coverage depends on the frame section and the gap.

Milestone (India) Corp · Official India partner of MAPURA GmbH, Germany

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