



INSTALLATION GUIDE

EPS Cornices (Standard P001C-P025C incl. P012C W, and Shadow Line SL001-SL006)

A one-piece expanded-polystyrene cornice profile, 2400 mm long, bonded into the wall-to-ceiling junction with cornice adhesive and painted on site.

DOCUMENT

ISSUED

PRODUCT

STATUS

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cornices

Issued for use

BEFORE YOU START

The wall and the ceiling must be finished, cured, dry, sound and clean before a single length goes up. Plaster or skim coat fully cured - not green, not damp. No loose, flaking or friable paint: scrape it back to something solid. No dust, no release oil, no mould-release off precast, no silicone overspray.

The adhesive is a water-based acrylic dispersion. It bonds as its water leaves, into the air and into the substrate, so it needs at least one absorbent face to work against. Where both faces are sealed and glossy - a gloss-painted wall against a sealed ceiling - key or abrade them first, or the bond will be slow and unreliable.

Do not fix cornice to a wet, freshly plastered wall. Do not fix cornice before the ceiling boards are fixed and set. If either surface is more than a few millimetres out of true along the run, decide before you start whether you are bedding the gap out with adhesive or scribing the profile.

TOOLS

- Laser level or chalk line, and a long spirit level (1.2 m minimum)
- Mitre box for the profile in use - Technopol supply these for all profiles on request. Get one; a freehand mitre in soft foam is unforgiving.
- Fine-tooth handsaw, a sharp long-blade knife, or a hot-wire cutter
- Tape measure and pencil
- Caulking gun for the 280 ml cartridge; a filling knife or notched applicator for the 5 kg pail
- Filling knife, and a wet sponge or damp cloth for tooling the joints
- Temporary supports: a batten and props, or fine pins into the wall below the line (not through the cornice)
- Ladders or a trestle - never a single-point balance while holding a 2400 mm length
- Water-based primer and water-based paint. Nothing solvent-based on the job.
- Offcuts, kept aside for the substrate bond trial and for testing any unfamiliar primer, paint or filler

SEQUENCE

1 1. Check the code and count the boxes

Confirm the code on the box against the drawing (P001C to P025C, P012C W, or SL001 to SL006). The tenth Standard code is printed as P0010C - check it by that code.

Every profile is 2400 mm long, but the sections differ and the pack quantities differ a lot: from 11 lengths per box (SL003) and 12 (P009C) up to 80 (P014C). Read the section off the sheet: Depth is the ceiling projection, Height is the wall drop.

CHECK BEFORE MOVING ON

- Code on the box matches the drawing.
- Physical length measured: 2400 mm.
- You know which leg goes on the ceiling and which drops down the wall.
- Enough boxes on site for the full run plus mitre wastage - box quantities are not uniform, so count them per code.

2. Trial the bond on the actual substrate

Before the run starts, bond a 300 mm offcut to the wall and to the ceiling in the condition they will be in on the day - same plaster, same paint, same key. Leave it 24 hours and try to pull it off.

This is a five-minute job that catches the two conditions that bring a cornice run down: green plaster, and unkeyed gloss paint that gives the adhesive nowhere to send its water. Do it without fail on high ceilings, on runs above circulation routes, and on deep heavy sections such as P003C.

CHECK BEFORE MOVING ON

- Offcut bonded to both the wall and the ceiling substrate, in the as-built condition.
- 24 hours elapsed, and the offcut holds under a firm pull.
- If it lets go: substrate keyed, abraded or allowed to dry, and the trial repeated before any cornice goes up.

3. Set out a level line - not a line that follows the ceiling

Take the Height dimension of the profile - the wall drop. Strike a continuous level line right around the room at that dimension below the ceiling, with a laser or a chalk line and a long spirit level.

Do not run the cornice parallel to the ceiling. Ceilings undulate, and a cornice bedded to follow the ceiling puts a wavering shadow line across the room that the eye picks up instantly. Walk the line, find the worst gap between it and the actual ceiling, and decide now whether you are bedding that gap out with adhesive and filler, or scribing the top of the profile.

CHECK BEFORE MOVING ON

- The line is level all the way round and closes back on itself.
- Worst gap between the line and the ceiling measured, and a plan exists for it.
- The line is marked on every wall, including behind where the ladder goes.

4. Cut the corners first, then the runs

Cut and dry-fit every internal and external mitre before you cut a single straight length. Use the mitre box. Then cut the straight runs to fit between the corners.

Cut the runs first and you will be short at every corner, splicing offcuts into the most visible part of the job. Offer each mitre up dry, hold it in place, and look at it: a mitre that will not close dry will not close with adhesive behind it.

CHECK BEFORE MOVING ON

- Every mitre dry-fitted and seen to close before any adhesive is opened.
- External mitres cut with the long face out - check twice; foam does not forgive a reversed cut.
- Straight runs cut to fit between finished corners, not the other way round.

5. Butter both faces

Apply a continuous bead of cornice adhesive to BOTH contact faces of the profile - the wall leg and the ceiling leg. A cornice is held on two faces. A bead on the wall face alone lets the ceiling leg drop open within the hour, and there is nothing to catch it.

Set the bead back slightly from the visible arris so the squeeze-out goes behind the profile, not down its face. Size the bead so it just closes the gap and squeezes out slightly along the whole length.

For ordering: a 5 kg pail covers about 50 m (20 lengths), a 280 ml cartridge about 5 m (2 lengths). Add wastage.

CHECK BEFORE MOVING ON

- Adhesive on BOTH faces, continuous, right to both ends.
- No bare stretch anywhere along the 2400 mm.
- Bead set back from the visible edge.
- Nothing solvent-based has been opened on this job.

6. Press, bed, and support until it holds

Offer the length up to the level line, press it home, and slide it 10-20 mm along the junction to bed the adhesive into both faces. Bring it back to the line.

The adhesive grabs on suction and then gains strength over hours - it does not set instantly. Support the length until it holds itself: props with a batten, or fine pins driven into the wall just below the line (into the wall, never through the cornice). Deep sections such as P003C and long unbroken runs need more support, not less.

Squeeze-out is expected. Wipe it back with a damp sponge while it is still wet; once it has skinned it is far harder to get off the paintwork.

CHECK BEFORE MOVING ON

- Profile sits on the level line, not on the ceiling line.
- Squeeze-out visible along both faces - proof the bead made full contact.
- Length is supported and stays put when you let go.
- Excess wiped off before it skins.

7. Point the joints

Fill and point every butt joint, every mitre, and the top and bottom lines against the ceiling and the wall, with the same acrylic sealant.

Tool it with a wet finger or a filling knife so it needs no sanding. EPS sands badly, and a heavy hand takes the profile detail off along with the filler. A well-pointed mitre disappears under paint; a hollow one shows as a black line forever.

CHECK BEFORE MOVING ON

- Every mitre and butt joint filled proud and tooled flush.
- Top and bottom lines pointed continuously - no gaps at the corners.
- No filler smeared over the moulding detail.

8. Prime and paint - water-based only

Prime and paint with water-based systems only. No oil-based or alkyd undercoat. No lacquer. No spirit-based sealer. No solvent spray paint.

Aromatic solvents dissolve expanded polystyrene, and the failure is not subtle: the profile pits, shrivels and collapses. If the tin does not confirm the product is water-based, test it on an offcut and watch it for thirty minutes before it goes anywhere near the finished run.

CHECK BEFORE MOVING ON

- Every tin on the job confirmed water-based.
- Any unfamiliar product trialled on an offcut first, and the offcut kept.
- Cornice fully painted - no bare foam showing anywhere, including cut ends.

9. Shadow Line: the LED cove

Mount the SL profile horizontally to form the cove channel.

Before the strip goes in: use a low-power LED strip; mount it on an aluminium carrier or channel so the heat has a path out; keep an air gap between the strip and the foam; and put the driver somewhere else entirely - never inside the cove. EPS softens and creeps above roughly 70-80 C.

Prove the detail before sign-off. Run the strip at full output for an hour, then feel the foam directly behind it. It must be no more than hand-warm. If it is hot to the touch, take the strip out and re-detail.

CHECK BEFORE MOVING ON

- Driver is outside the cove.
- LED strip is on a metal carrier, not sitting directly on the foam.
- Air gap maintained between the strip and the foam.
- One-hour full-output run done, and the foam behind the strip is no more than hand-warm.
- No recessed halogen or incandescent fitting is within reach of the cornice anywhere on the job.

FIXINGS AND FASTENERS

Fixing method	Adhesive bond only, onto both contact faces (wall leg and ceiling leg). No mechanical fixing.
Adhesive	Cornice adhesive - DB Acrylic Sealant: one-part white water-based acrylic dispersion, cures to a soft plastic-elastic rubber, paintable with water-based paints, non-corrosive when cured.
Pack sizes	280 ml cartridge and 5 kg pail.
Coverage, pail	About 50 m (20 lengths) per 5 kg.
Coverage, cartridge	About 5 m (2 lengths) per 280 ml. Order with wastage.
Joint sealing	Same acrylic sealant at butt joints, mitres, and along the top and bottom lines.
Mechanical fixings (screws, nails, plugs)	None. 27 kg/m³ foam holds no mechanical fixing. Do not substitute nails or screws for adhesive, and do not fix anything else to or through the cornice.
Site bond trial	Bond a 300 mm offcut to the actual wall and ceiling substrate, leave 24 hours, and pull-test it before running the job. Required on high ceilings, on runs above circulation routes, and on deep sections such as P003C.
Mitre box	Available from Technopol for all profiles on request.

WHAT ACTUALLY GOES WRONG ON SITE

- Using a solvent-based adhesive - contact adhesive, a solvent-grade 'no-nails' tube, anything with an aromatic solvent in it. It dissolves the foam at the bond line and the run comes down, often hours after everyone has gone home. Water-based acrylic only.
- Oil-based or alkyd undercoat, lacquer or spray paint over the finished cornice. It pits and shrivels the profile. If the tin does not say water-based, test it on an offcut and watch it.
- Bedding the cornice to follow the ceiling instead of to a struck level line. Every dip in the ceiling then telegraphs into a wavering shadow line across the room, and the only fix is to take it all down.
- Adhesive on the wall face only. The cornice is held on two faces; a single bead lets the ceiling leg drop open.
- Cutting the straight runs first and the mitres last. You end up short at every corner, splicing offcuts into the most visible joint in the room.
- Fixing onto green plaster, or onto gloss paint with no key. The adhesive bonds as its water leaves and needs an absorbent, keyed face - which is what the 24-hour offcut trial is there to catch.
- Letting go before the adhesive has grabbed, or under-supporting a long run or a deep section such as P003C. There is no mechanical fixing to catch it.
- Screwing or nailing anything into the cornice - a curtain track, a pelmet bracket, a cable clip, a speaker. Foam at 27 kg/m³ holds nothing. Fix into the structure behind.
- Putting a recessed halogen or incandescent downlight, or an LED driver, close to or inside a cornice. Sustained temperatures above roughly 70-80 C soften and deform EPS.
- Assuming a uniform box quantity when ordering. Pack quantities run from 11 lengths per box (SL003) and 12 (P009C) up to 80 (P014C) - check the code.
- Sanding the filler back hard. EPS sands away faster than the filler does, and takes the moulding detail with it. Tool the joints wet instead.
- Leaving cut ends or a top edge unpainted where it will be seen or where it can catch UV. Bare EPS chinks and crumbles.

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