

SpecFloor MMA Coving Mortar

Three-component, thixotropic methacrylate (MMA) coving mortar for the formation of seamless, chemically resistant skirting coves at the floor-to-wall junction. Indoor and outdoor application. Rapid cure.

Description:

SpecFloor® MMA Coving Mortar is a three-component, thixotropic methacrylate (MMA) mortar formulated for the in-situ manufacture of seamless skirting coves at floor-to-wall junctions, plinths, equipment bases and column transitions. The product shares the same chemistry family as the SpecFloor® MMA flooring system and PlastiSeal® MMA primer range — delivering a monolithic, chemically continuous floor-to-wall bond.

The mortar is supplied as a pre-packed three-component kit: a thixotropic MMA resin component, a graded silica filler aggregate, and a benzoyl peroxide initiator powder. Cure is rapid across the full South African application temperature range (–30°C to +40°C with appropriate initiator and accelerator dose), making the product specifiable for cold-store, food-plant and outdoor industrial environments where coving must be returned to service within hours of installation.

Intended Uses:

- Hygienic floor-to-wall coving in food, beverage and dairy production facilities.
- Pharmaceutical and healthcare cleanroom coving requiring seamless, washable transitions.
- Cold-store and freezer coving — formulation cures down to –30°C with PlastiLine® MMA Accelerator.
- Industrial wet-area coving in workshops, washbays, abattoirs and chemical handling areas.
- Coving over the SpecFloor® MMA flooring system — full system chemistry continuity.
- Plinth and equipment-base coving in production environments.
- Outdoor coving where rapid cure and UV stability are required.

Features & Benefits:

- **Wide Application Temperature:** Cures from –30°C (with accelerator) to +40°C — suitable for cold stores, freezer rooms, ambient industrial areas and outdoor work across the full South African operating envelope.
- **Rapid Return to Service:** Through-cure within ~35–75 minutes depending on temperature and initiator dose. Coving can be commissioned same-shift.
- **Seamless System Continuity:** Chemically compatible with the SpecFloor® MMA flooring range and PlastiSeal® MMA primer family — forms a single MMA-family bond from primer to floor to cove. Eliminates dissimilar-material joints at the floor-to-wall interface.
- **Thixotropic Paste Body:** Holds vertical profile without slump — formed and tooled with standard coving trowels to consistent radius profiles.
- **100% Reactive Solids:** No volatile solvent loss on cure. Final cured volume equals applied wet volume — yield calculations are accurate.
- **Chemical & Wet-Wash Resistance:** Cured mortar withstands aggressive cleaning protocols typical of food, beverage, dairy, pharmaceutical and chemical-handling environments.
- **Outdoor Capable:** UV-stable MMA chemistry retains performance outdoors — coving at loading bays, external plant areas and uncovered service yards.
- **Pre-Packed Three-Component Kit:** 30 kg kit (7.5 kg resin + 22.5 kg graded silica + initiator sachet). Production batch traceability. No on-site weighing of filler.

Technical Data:

Property	Specification
Colour	Standard Mid-Grey. Other colours available on project request — confirm minimum order quantity with SCS.
Product Type	Three-component, thixotropic, reactive methacrylate (MMA) coving mortar. 100% reactive solids — no solvent.
Finish	Trowelled — matt to satin depending on tooling.
Mixing Ratio (Mass)	Component A (MMA Resin Paste) : Component C (Graded Silica) = 1 : 3 (7.5 kg : 22.5 kg per kit). Initiator dose is temperature-dependent — refer

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	Drying Information table.
Density — Component A (Resin)	Approximately 0.99 kg/L at 25°C (per Master Formulation).
Density — Mixed Mortar (Wet & Cured)	1.875 kg/L (per Master Formulation). Used for all yield calculations.
Volume Solids	100% (reactive system — no solvents, no on-cure shrinkage from solvent loss).
VOC Content	Methyl methacrylate monomer — refer SDS. No added VOC solvents.
Flash Point — Comp. A Resin	10°C — handle as flammable liquid.
Induction Period	None — apply immediately after mixing.
Pot Life @ 20°C	Approximately 15 minutes (mixed mortar at 2% initiator dose).
Application Thickness	First lift: maximum 5 mm. For coves greater than 10 mm cross-section, apply in successive lifts to manage exotherm. Allow each lift to cool before overcoating.
Application Temperature	–30°C to +40°C (substrate and ambient). Use PlastiLine® MMA Accelerator below 0°C.
Method of Application	Hand-trowelled with dedicated MMA coving trowels and fillet tools.
Solvent for Cleaning	Acetone, MEK or Ethyl Acetate (uncured material only). Tools must be cleaned before pot life elapses.
Initiator	PlastiLine® MMA BP 50 Hardening Powder (benzoyl peroxide). Dose by mass of Component A — refer Drying Information.
Accelerator (sub-zero application)	PlastiLine® MMA Accelerator — refer Drying Information for dose at temperatures below 0°C.
Substrate Adhesion	Apply only over pre-primed and broadcast substrates. Refer Surface Preparation section.
Topcoatable	Yes — overcoatable with SpecFloor® MMA topcoats and GlazeCoat clears once coving cured tack-free and lightly sanded.

Kit Composition:

SpecFloor® MMA Coving Mortar is supplied as a pre-packed three-component kit. Each kit yields approximately 16.0 L of mixed mortar.

Component	Description	Pack Size	Kit Total
Component A	SpecFloor® MMA Coving Resin Paste (thixotropic methacrylate binder with graded mineral filler)	7.5 kg tin	30 kg kit
Initiator	PlastiLine® MMA BP 50 Hardening Powder (benzoyl peroxide). Dose temperature-dependent.	Sachet	30 kg kit
Component C	Graded silica quartz aggregate (0.7 – 1.2 mm). May be substituted with coloured quartz on project request.	22.5 kg bag	30 kg kit
Accelerator	PlastiLine® MMA Accelerator — order separately for sub-zero application ($\leq 0^{\circ}\text{C}$).	500 ml bottle	As required

Drying Information:

Initiator dose is calculated on the mass of Component A (Resin) only — never on the total mortar mass. Working times and hardening times shown are typical at the corresponding initiator dose under laboratory conditions; site conditions may vary. Below 0°C, retain initiator at 6% and add PlastiLine® MMA Accelerator at the dose shown.

Temperature	Initiator (% of Comp.)	Accelerator (% of	Pot Life	Hardening Time
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Whilst we endeavour to ensure that all advice we give about the product is correct, the information given in this data sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so entirely at his own risk. As conditions of use, method of application and suitability of the substrate prior to painting are beyond our control, no guarantee is implied by the recommendations contained herein. We therefore do not accept any liability whatsoever or howsoever arising from the performance of this product or for any loss or damage arising out of the use of this product. The information contained in this sheet is liable to modification from time to time in the light of experience and ongoing product development programmes. It is the user's responsibility to ensure that this sheet is current prior to using the product

Latest Update:
26/05/2026 (V1)
Issue Date:
26/05/2026

	A)	Comp. A)		
-30°C	6.0%	3.0%	~10 – 15 min	~60 – 90 min
0°C	6.0%	0.5%	~30 – 40 min	~70 – 100 min
5°C	4.5%	— (optional)	~40 min	~70 min
10°C	3.0%	—	~35 min	~75 min
20°C	2.0%	—	~15 min	~35 min
30°C	1.0%	—	~25 min	~70 min

Note: pot life and hardening time figures are derived from SCS laboratory testing and production verification. Always run a job-site adhesion and pot-life trial before bulk application.

Theoretical Yield:

A 30 kg kit produces approximately 16.0 L of mixed mortar (30 kg ÷ 1.875 kg/L). Lineal-metre coverage of a cove varies significantly with the cove profile and dimension. Two profiles are tabled below: concave (radius) cove — standard for hygienic food, beverage and pharmaceutical specifications — and 45° solid triangular fillet — used in general industrial and equipment-base applications.

Figures are theoretical and assume a uniform, void-free profile. On-site yield is typically 10 – 20% lower due to tooling waste, profile variation and mix-pot residuals. Apply an appropriate wastage factor when ordering.

Yield Scenario 1 — Concave (Radius) Cove

Quarter-radius hygienic cove — radius = cove height = floor leg. Cross-section $A = r^2 \cdot (1 - \pi/4)$. Standard profile for food, beverage, dairy, pharmaceutical and healthcare specifications.

Cove Radius	Cross-Section	Volume per Lineal Metre	Lineal Metres per 30 kg Kit	Lineal Metres per kg
R25 (25 mm)	1.34 cm ²	0.134 L/m	~119 m	~3.98 m
R50 (50 mm)	5.37 cm ²	0.537 L/m	~30 m	~0.99 m
R75 (75 mm)	12.07 cm ²	1.207 L/m	~13 m	~0.44 m
R100 (100 mm)	21.46 cm ²	2.146 L/m	~7.5 m	~0.25 m

Yield Scenario 2 — 45° Triangular Fillet (Solid Fill)

Solid 45° fillet — height = floor leg. Cross-section $A = 0.5 \cdot h^2$. Used for equipment-base transitions, plinth coving, and general industrial applications where a hygienic radius profile is not specified.

Fillet Height	Cross-Section	Volume per Lineal Metre	Lineal Metres per 30 kg Kit	Lineal Metres per kg
25 mm	3.13 cm ²	0.313 L/m	~51 m	~1.71 m
50 mm	12.50 cm ²	1.250 L/m	~13 m	~0.43 m
75 mm	28.13 cm ²	2.813 L/m	~5.7 m	~0.19 m
100 mm	50.00 cm ²	5.000 L/m	~3.2 m	~0.11 m

Surface Preparation:

SpecFloor® MMA Coving Mortar must only be applied over a pre-primed and broadcast substrate. Substrate preparation and priming determine bond strength — failure to follow this sequence will void any system performance claim.

- Concrete and cement screed: minimum 28 days cure. Compressive strength ≥ 25 N/mm². Pull-off strength ≥ 1.5 N/mm². Mechanically prepared by grinding, captive-shotblast or diamond cup to remove laitance and expose aggregate. Surface profile equivalent to CSP 3–4.

- Moisture: substrate moisture $\leq 4\%$ (CM unit). Test for rising damp using a 1 m² polyethylene film taped down for 24 hours — any condensation indicates moisture vapour transmission. Where rising damp or fresh concrete is present, prime with PlastiSeal® MMA Damp Concrete Primer.
- Priming: apply PlastiSeal® MMA Concrete Primer (LV or MV per substrate condition) and broadcast with kiln-dried silica (0.4 – 0.7 mm) to refusal while the primer is still wet. Allow to cure, then sweep and vacuum excess sand before applying the coving mortar.
- Adhesion check: where substrate history is unknown, perform a small primer + mortar adhesion patch. After cure, chisel off — failure must occur in the substrate, not at the bond line.
- Overcoating cured base coats with broadcast: where coving is being installed over a cured, flake- or quartz-broadcast SpecFloor® MMA system, lightly sand or grind the contact area to remove loose particles and avoid micro-bubbles in the cured cove.
- Ensure efficient cross-ventilation throughout application and cure to safely dissipate methyl methacrylate monomer vapour.

Mixing:

- Pre-stir Component A — the resin paste settles in storage and must be re-homogenised before use.
- Weigh out the required mass of Component A. Calculate initiator dose by mass of resin only — refer Drying Information table for the correct dose at the working temperature.
- Add the initiator powder to Component A and mix thoroughly with a slow-speed mixer for approximately 1 minute until fully dispersed and homogeneous.
- For application at 0°C or below, add PlastiLine® MMA Accelerator at the dose shown in the Drying Information table while retaining initiator at 6% by mass of Comp A.
- Add Component C (graded silica) at the 1 : 3 mass ratio (3 kg silica per 1 kg Comp A). Mix until fully wetted and uniform — typically 60 – 90 seconds.
- Discharge immediately. No induction period — pot life is running from initiator addition.
- Plan batch size to be discharged within the pot life shown for the working temperature. Mix only what can be tooled inside the pot life.

Application:

- Apply over the broadcast and cured PlastiSeal® MMA primer using dedicated MMA coving trowels and fillet tools.
- Compact the mortar firmly into the floor-wall corner — voids at the corner are the primary failure mode of poorly-installed coving.
- Tool to the specified profile (concave radius or 45° fillet) in a single pass while the mortar is workable. Re-tooling after surface set will tear the profile.
- Lift discipline: first lift no greater than 5 mm cross-section. For coves above 10 mm cross-section apply in successive lifts. Allow each lift to cool fully (touch-test) before applying the next — cumulative exotherm in deep sections can cause crazing, shrinkage cracks or substrate disbond.
- Where the cove will be overcoated with an MMA topcoat or GlazeCoat clear, lightly sand the cured cove with a soft pad to remove any surface gloss and expose a fresh chemical key.
- During and after application, maintain efficient cross-ventilation until the cove is tack-free and the methyl methacrylate vapour has fully dissipated.

System Continuity:

SpecFloor® MMA Coving Mortar is part of the SCS MMA family — primer, body, mortar, coving and topcoat are all methacrylate chemistry, forming a chemically bonded single-family system. The recommended overcoats and adjacent products in the cove area:

Layer	Recommended Product	Function
Primer	PlastiSeal® MMA Concrete Primer (LV / MV / Damp Concrete variants)	Substrate sealing & bond promotion. Broadcast with 0.4 – 0.7 mm silica.
Coving	SpecFloor® MMA Coving Mortar (this product)	Floor-to-wall radius or fillet cove formation.
Floor body	SpecFloor® MMA Self-Levelling or SpecFloor® MMA Broadcast System	Main floor build — chemically continuous with the cove.

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Topcoat (optional)	SpecFloor® MMA Topcoat or GlazeCoat® clear	Closes broadcast, enhances chemical and wear resistance, unifies appearance.
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Limitations:

- Not suitable for application over uncured concrete (less than 28 days) without the damp-concrete primer system.
- Not suitable over surfaces contaminated with concrete retarder, accelerator, plasticiser, silane / siloxane water-repellent treatments, curing membranes or oil/grease residues — these compromise MMA cure and adhesion.
- Not directly compatible over epoxy-coated substrates without mechanical preparation and full MMA primer system — epoxy can poison the MMA cure if cross-contamination occurs.
- Pot life is short and temperature-sensitive — mix only the volume that can be tooled within the pot life. Material that has begun to thicken in the pot must not be applied.
- Exotherm management is mandatory above 10 mm cross-section — single-lift over-application causes crazing, shrinkage and bond failure.
- Methyl methacrylate vapour requires effective cross-ventilation during application and cure. Do not apply in confined or unventilated spaces without engineered ventilation.
- Initiator dose must always be calculated on Component A mass only. Over-dose causes rapid exotherm and short pot life; under-dose causes failure to cure or tacky surface.

Storage & Shelf Life:

- Component A (Resin): 6 months from date of manufacture, in unopened original container, stored at 5 – 25°C, away from direct sunlight, heat sources and incompatible chemicals (acids, oxidisers, amines).
- PlastiLine® MMA BP 50 Initiator: 6 months from date of manufacture, stored cool ($\leq 25^{\circ}\text{C}$), dry, in original sealed sachet. Keep separate from flammables, reducing agents and heat.
- Component C (Silica): 24 months from date of manufacture, in a dry, sealed bag.
- PlastiLine® MMA Accelerator: 6 months from date of manufacture, stored cool, away from initiators and direct sunlight. Never premix accelerator with initiator — store and dispense separately.
- Stir Component A before each use after extended storage — the thixotropic paste tends to settle.

Health & Safety:

Component A contains methyl methacrylate monomer (Flash Point $\sim 10^{\circ}\text{C}$ — handle as flammable liquid). PlastiLine® MMA BP 50 Initiator is benzoyl peroxide — an organic peroxide. PlastiLine® MMA Accelerator contains tertiary amine activators. All three components have specific handling, storage and PPE requirements.

NEVER bring initiator and accelerator into direct contact — combine each separately with Component A only. Direct contact between BP 50 powder and the amine accelerator can cause violent decomposition.

Provide effective mechanical ventilation throughout mixing, application and cure. Wear suitable PPE: solvent-resistant gloves, eye protection, and an organic vapour respirator where ventilation is restricted. Refer to the relevant Safety Data Sheets for each component before handling.

Regulatory & Disclaimer:

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The information in this Technical Data Sheet is based on laboratory testing, supplier data and production verification at the date of issue. Site conditions, substrate variability and application technique are beyond SCS control. No guarantee of performance is implied. Users must verify product suitability for the intended use by independent trial. The most current TDS is available on request and supersedes all earlier versions.