

NIKKOLOR

MICROCEM-FB TECHNICAL DATA SHEET

Fibre-reinforced mineral microcement for seamless surfaces

AUSTRALIAN TECHNICAL DATA SHEET

REVISION 11 | SEPTEMBER 2026 | PROFESSIONAL USE

Manufacturer: Nikkolor Italia s.r.l. | www.nikkolor.net

01 / DOCUMENT STATUS AND PRODUCT PROFILE

Product scope and control

Purpose of this edition

This Australian edition consolidates the current Nikkolor manufacturer sheet with later written technical direction from Nikkolor Italia. It explains product use, substrate selection, protection, hold points, tested-system limits and Australian project controls without introducing another brand or a separate installer method.

CONTROL PRINCIPLE	The actual substrate and service condition determine the primer, reinforcement, preparation and protection. Do not substitute one universal build-up for every project.
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Product identity

PROPERTY	NIKKOLOR REFERENCE
Product	Microcem-FB
Type	Next-generation, one-component, fibre-reinforced mineral microcement
Composition	Quartz microspheres, marble powders, white Portland cement 525, selected glass fibres and performance additives
Finish character	Natural raw-microcement character with a coarser particle distribution and stronger material movement than Cemento 3D
Packaging	20 kg premixed powder
Colour system	White base coloured with shade-specific Nikkolor toner; 32 published shades

Typical fields of use

- Interior and selected exterior floors, walls and ceilings on suitable prepared substrates.
- Residential, retail, hospitality and selected commercial spaces.
- Bathrooms, showers, saunas, balconies, terraces and pools only within an approved complete system.
- Furniture, joinery, worktops and decorative panels where substrate rigidity and service conditions are suitable.

Key characteristics

- Selected glass-fibre reinforcement within the premixed powder.
- Maximum published grain size of 0.5 mm for an authentic, material microcement effect.
- Seamless transition capability across suitable floor and wall surfaces.
- Manufacturer-described resistance to flame spread and smoke development; consult current evidence where a project requires a formal classification.

THIN-LAYER SYSTEM	This is a bonded decorative coating, not a levelling compound or structural repair system. Surface irregularities, movement and waterproofing defects must be resolved before application.
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MICROCEM-FB STANDARD LAYERED SYSTEM

Illustrative layer sequence — not to scale



TECHNICAL NOTE

Standard protective cycle shown for normal domestic walls, floors, bathrooms and showers. Optional mesh, anti-fracture membrane or alternative protection may be specified where required by the substrate assessment or service conditions.

02 / SUBSTRATE AND SYSTEM SELECTION

Select the build-up from the substrate

BEFORE COATING	Confirm the precise substrate, its condition, expected exposure and protection requirement. If any interface is not covered by current Nikkolor documentation, stop and obtain project-specific technical direction.
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SUBSTRATE / CONDITION	SYSTEM DIRECTION	CRITICAL CONTROL
Sound ceramic, porcelain or marble	Primer NK -> 2 coats Microcem-FB -> selected protection	Full-surface mesh is not automatically required merely because the substrate is tiled; verify bond, joints and movement.
Plasterboard, sound painted wall or stable furnishing surface	Primer NK -> 2 coats Microcem-FB -> selected protection	Surface must be firmly bonded, flat and free of soluble or air-drying compounds.
Cementitious screed or concrete floor	Assessment -> repairs / fibreglass mesh where required -> Primer NK -> Microcem-FB	Nikkolor reinforcement requirements for screeds and cementitious substrates remain applicable.
Service chases, repairs, board joints or material transitions	Approved preparation + fibreglass mesh -> appropriate Microcem-FB system	Mesh reinforces the transition but does not replace movement-joint or crack-isolation treatment.
Compatible waterproofing membrane	Project-specific compatibility approval -> selected receiving layer -> Microcem-FB	Never assume direct adhesion to every membrane. Complete a representative compatibility test where required.
Underfloor heating	Complete commissioning cycles -> assess actual receiving substrate -> applicable Microcem-FB build-up	Heating does not create a separate coating system, but substrate movement and commissioning must be controlled.
Worktop, high-traffic area or pool	Project-specific substrate build-up -> Microcem-FB -> protection suited to service	PRP Glass Protekt is generally selected where higher-performance protection is required.

Readiness checks

- Substrate is sound, stable, clean, correctly cured and permanently dry.
- No dust, wax, oil, grease, laitance, paint failure, loose material or incompatible residue.
- Wet-area waterproofing is complete, compliant and compatible; the Nikkolor system is not the waterproofing membrane.
- Falls, penetrations, corners and junctions are complete before decorative work begins.

Reinforcement and movement

- Fibreglass mesh is substrate-driven. Use it where screeds, repairs, chases, board joints or transitions require reinforcement.
- Mesh reduces stress concentration but does not replace a structural crack-isolation system.
- Movement and control joints must retain their designed function; do not bridge them rigidly without an approved detail.
- Record substrate, primer, mesh and protection decisions in project QA documents.

03 / MIXING AND APPLICATION

Controlled batching and layer sequence

STANDARD MIX	20 kg powder + 6 L potable water + Nikkolor toner
Small batches	300 mL water per kg of powder, plus proportional formula toner
Toner examples / 20 kg	6 L water + 250 mL toner; or 6 L water + 1 L toner
Maximum recommended toner	6 Nikkolor toners per 20 kg; verify the toner-unit size and colour formula
Pot life / nominal coverage	About 4 hours at +20 C / 16 m ² per 20 kg across two decorative coats

WATER > TONER > MIX > GRADUALLY ADD THE PRODUCT

1. Prepare the specified substrate, reinforcement and primer/receiving layer first; allow the required drying. Batch decorative material only when the receiving surface is released.
2. Measure 6 L potable water per 20 kg into a clean container. Add the specified Nikkolor toner to the water and mix thoroughly until the colour is completely and uniformly dispersed.
3. Only then add Microcem-FB gradually, in small quantities, while continuing mechanical mixing. Scrape the container and mix to a smooth, homogeneous, lump-free paste.
4. Keep water and toner quantities, equipment and mixing time consistent. Toner is additional to the water; never subtract it. The formulation already allows for the toner addition.
5. Apply the first Microcem-FB coat with a stainless-steel trowel. Allow about 12 hours at +20 C before the second coat, subject to actual drying and the release criteria below.
6. Allow about 24 hours at +20 C after the second decorative coat before protection. Sanding is optional; if needed, follow the method below. Remove dust and apply the selected complete protection cycle.

SPECIFIC MESH-EMBEDDING TECHNIQUE - NOT THE STANDARD RATIO

An experienced applicator may use approximately 5.5 L water per 20 kg where a firmer mix is needed to hold fibreglass mesh against the substrate and fully embed it. Toner remains additional. Use only in the specified compatible embedding layer. The standard ratio remains 6 L.

MOISTURE AND INTERCOAT RELEASE

Use the applicable substrate, coating and protective-finish acceptance criteria. Record the instrument, method, units, substrate, locations, readings and site conditions. A universal percentage such as less than 5% is not a Nikkolor release rule. Resolve unexplained dampness or an unqualified result before coating; elapsed time alone is insufficient.

Coverage and colour control: nominal coverage is for two decorative coats; allow separately for preparation, mesh embedding, texture and waste. Keep production batches and the recorded colour formula consistent across a continuous face. Approve a sample with the full protection cycle; do not retemper stiffening material.

OPTIONAL SANDING / SALVO'S CORRECTED NIKKOLOR METHOD

Applies to Microcem-FB, Cemento 3D, Etna and Terra Veneziana. Sand only when refinement is needed, after at least 24 hours drying at +20 C. Use P150 or P180 only, with a random orbital sander at medium speed and light pressure. Work evenly; never force the machine. Preserve coating thickness, texture, colour uniformity and continuity. Substrate-preparation abrasives and timings are separate.

04 / PROTECTION AND LAYER FUNCTIONS

Protection is selected by service condition

NIKKOLOR TECHNICAL DIRECTION	Decor Finish is the standard normal-use protection cycle. PRP Glass Protekt is the higher-performance alternative for demanding exposure. A bathroom or floor alone does not automatically require PRP.
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SERVICE CONDITION	PROTECTION DIRECTION	APPLICATION CONTROL
Normal domestic walls, floors, bathrooms and showers	Decor Finish - standard protection system	Three coats by short-pile roller; approximately 24 hours between coats and 72 hours protected drying after the final coat at +20 C.
White or very light shades	Decor Finish sheen-managed cycle	Use Semi-Gloss for the first coat, then the specified Matte or other selected sheen for remaining coats, in line with current Nikkolor direction and the approved sample.
Pools, tanks, prolonged water, chlorine or salt water, high traffic or aggressive exposure	PRP Glass Protekt - high-performance alternative	Follow the current PRP Glass Protekt TDS and project-specific written specification; do not assume Decor Finish timings apply.
Natural breathable vertical finish	ProteKto EcoSilan where technically selected	Vertical applications only. Do not use EcoSilan on floors.

SYSTEM FUNCTION	ELEMENT
Adhesion / grip	Primer NK
Levelling / closed receiving layer for specified rigid substrates	Primer Beton
Stress distribution at specified transitions	Fibreglass mesh
Crack or movement management	Compatible approved anti-fracture / elastic detail
Waterproofing	Compliant compatible waterproofing membrane
Decorative finish	Microcem-FB
Wear, stain, water and cleaning protection	Decor Finish, PRP Glass Protekt or selected Nikkolor protection

Membranes

- Waterproof does not automatically mean compatible with the decorative build-up.
- Confirm membrane identity, cure, surface condition and the complete proposed interface before coating.
- Do not add primer, mesh or another layer over a membrane unless that interface is approved.

Moisture and movement

- Rising damp, seepage and negative hydrostatic pressure require a separate moisture-management solution.
- Determine why a crack or joint exists before covering it.
- Do not rigidly erase designed movement-joint function with a decorative coating.

05 / TECHNICAL DATA

Published Microcem-FB properties

PROPERTY	PUBLISHED / CONTROLLED REFERENCE
Appearance / colour	Premixed white powder; 32 published shades with Nikkolor toner
Mixing water	Standard 300 mL/kg; 6 L per 20 kg, plus toner
Mixture pH	Approx. 12
Coverage	Approx. 16 m ² per 20 kg pack over two decorative coats
Pot life	Approx. 4 hours at +20 C
Maximum grain	0.5 mm
Mineralogical aggregate	Silicate / carbonate
Consistency	Thixotropic
Mix density	Approx. 1,500 kg/m ³ ; apparent density approx. 1.50 kg/L
Powder apparent density	Approx. 1.20 kg/L
Packaging	20 kg
Application temperature	Published +5 C to +30 C; substrate must be above +10 C
Operating / thermal range	Approx. -30 C to +70 C
Surface dry	Approx. 3 hours at +20 C; not a sanding release
Decorative recoat	Approx. 12 hours at +20 C, subject to applicable drying / release criteria
Light walkability	Approx. 48 hours at +20 C, subject to completed protection and handover controls
Hardening / furniture	Approx. 7 days / approx. 10 days at +20 C
Full cure	Approx. 28 days at +20 C
Shelf life	24 months from manufacture, unopened and correctly stored
End-use classification	UNI EN 1062-1, 4.1: decoration and protection
UFI	NC00-Y08C-J00G-9N29
PRP water / UV resistance reference	Approx. 7 days after the completed PRP Glass Protekt cycle

Environmental effects

Times are laboratory references at approximately +20 C, 65% relative humidity and no ventilation. Lower temperature, higher humidity, low airflow, thicker build and substrate absorbency can extend drying.

Application temperature

The published working range is approximately +5 C to +30 C, while the manufacturer warning requires the substrate to be above +10 C. The stricter substrate condition governs.

DRY DOES NOT MEAN CURED

Surface-dry, recoat, walkability, hardening and full cure are different stages. Confirm moisture, protection cure and service restrictions before opening the surface to traffic, water, cleaning or furniture.

06 / PERFORMANCE

Separate product results from complete-system results

CHARACTERISTIC	STANDARD	REPORTED RESULT	STATUS
Slip displacement - material test	UNI EN 1308	0.02 mm	Not an AS 4586 classification
Initial tensile adhesion	UNI EN 1348	1.71 N/mm ²	Published adhesion result
Tensile adhesion after heat ageing	UNI EN 1348	1.42 N/mm ²	Published adhesion result
Tensile adhesion after water immersion	UNI EN 1348	1.26 N/mm ²	Published adhesion result
Compressive strength	UNI EN 13892-2	24.33 N/mm ² at 28 days	Microcem-FB - internal Nikkolor R&D;
Flexural strength	UNI EN 13892-2	6.22 N/mm ² at 28 days	Microcem-FB - internal Nikkolor R&D;
Impact resistance	UNI EN ISO 6272-1	5.42 Nm	Complete system - internal Nikkolor R&D;
Liquid-water permeability	UNI EN 1062-3	w = 0.0001 kg/(m ² h ^{0.5})	Complete system - internal Nikkolor R&D;

**TESTED-SYSTEM
BOUNDARY**

The complete tested system for impact resistance and liquid-water permeability is Primer NK + Microcem-FB + Decor Finish. The manufacturer states that compressive strength, flexural strength, impact resistance and liquid-water permeability were determined internally by Nikkolor Italia R&D; using the stated UNI EN methods.

Australian classification

European UNI EN material and system tests are not Australian regulatory classifications. Do not convert the reported slip or mechanical values into an AS 4586 P classification. Where an Australian slip classification is required, test the exact finished build-up, texture and protection system.

Interpretation controls

- Results apply to the test specimen or complete system stated in the source record.
- A result does not automatically transfer to a different primer, substrate, membrane, texture, protection product or application method.
- Internal Nikkolor R&D; results must not be presented as independent third-party certification.
- Project specifications should identify the exact system being relied upon and any local test requirement.

07 / CURE, COMMISSIONING AND CARE

Protect the system while performance develops

CONSERVATIVE HANDOVER

The technical table publishes light walkability from approximately 48 hours, but the manufacturer care guidance requires the first week to remain protected from cleaning, liquids and avoidable traffic. Use the more conservative restriction for project handover.

STAGE	MINIMUM REFERENCE AT +20 C	CONTROL
Between decorative coats	Approx. 12 hours	Recoat only when released. Optional sanding: 24 h minimum at +20 C; see p. 5.
Decorative coat to protection	Approx. 24 hours	No trapped moisture; surface clean and dust-free.
Between Decor Finish coats	Approx. 24 hours	Avoid dust, water, direct sun and uncontrolled airflow.
After final Decor Finish coat	Approx. 72 hours protected drying	No water, cleaning, trades or heavy use.
First week	7 days	Keep dry. Do not clean. Avoid general traffic and all preventable access.
Furniture	Approx. 10 days	Use clean non-staining felt pads; never drag items.
Full cure	Approx. 28 days	Maximum service properties develop progressively.

Routine cleaning

- Remove grit with a soft broom or suitable vacuum before wet cleaning.
- Use warm water, pH-neutral cleaner and a clean microfibre cloth or mop.
- Do not use wire brushes, abrasives, hydrochloric acid, acetone, ammonia, aggressive alkaline cleaners or strong solvents.
- Remove spills immediately; standing water and prolonged damp contact can damage surface protection.

In-use protection

- Use non-staining felt pads and silicone-rubber chair castors.
- Prefer cotton or natural-fibre mats; plasticised rubber and some synthetic materials can mark the finish.
- Avoid direct prolonged contact with dyes, oils, perfumes, creams, grease, mortar and paint.
- Inspect wear areas and renew the selected protection system before it is exhausted.

OPTIONAL SANDING IS SEPARATE FROM THE 12-HOUR RECOAT REFERENCE

Sanding is not a mandatory application stage. If required, allow at least 24 hours drying at +20 C; use P150 or P180 only with a random orbital sander at medium speed and light pressure. Work evenly and preserve the finished layer. Actual drying and the next layer's acceptance criteria must also be satisfied.

08 / SAFETY, STORAGE AND DOCUMENT CONTROL

Use the current complete Nikkolor system documentation

Storage

- Keep unopened in original packaging in a dry, ventilated location protected from weather, UV, heat and humidity.
- Published shelf life is 24 months from manufacture when correctly stored and unopened.
- Material exposed to temperature extremes may crystallise, harden, fluidise or cure abnormally. Restore to suitable conditions and verify before use.

Safety

- Professional-use product. Read the current Safety Data Sheet before handling.
- Control cementitious dust and prevent eye, skin and respiratory exposure. Use task-appropriate PPE and ventilation.
- Protect adjacent surfaces and dispose of residue and packaging in accordance with applicable requirements.

Technical limitations

- Do not apply to wet, frozen, dirty, friable or unstable surfaces, or where rising damp or seepage is unresolved.
- Protect new work from direct sun and drafts for at least the first 6 hours and from uncontrolled weather during cure.
- Avoid direct contact with highly acidic, strongly alkaline or oxidising substances and high-plasticiser rubber.
- Complete a representative preliminary test when suitability, compatibility, appearance or service exposure is uncertain.

Technical contact

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DOCUMENT	REFERENCE / PURPOSE
Nikkolor Microcem-FB manufacturer TDS	Manufacturer sheet issued 31 July 2025, Rev. 1 dated 31 July 2025; technical content updated January 2026
Nikkolor written technical direction	Both Salvo reviews: mixing, toner, embedding, protection, moisture and corrected optional sanding. The later email is the current sanding reference; September 2026.
Relevant system component TDS	Current Primer NK, Primer Beton, Decor Finish, PRP Glass Protekt, ProteKto EcoSilan and SDS documents
Project documents	Approved sample, substrate assessment, membrane acceptance, batch records, moisture readings, local testing and handover controls

DOCUMENT STATUS	Revision 11 incorporates both supplied Salvo reviews, including the sanding correction. Australian workshop controls remain distinct. Confirm current TDS, SDS and written project-specific direction.
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The information is based on current technical and application knowledge. Because substrate condition, weather, workmanship and use are outside the manufacturer's direct control, it is general guidance and does not replace project-specific assessment. The applicator remains responsible for verifying suitability and completing the work in accordance with applicable local requirements.

REVISION 11 / SEPTEMBER 2026

Revision 11 updates the Australian Revision 10 edition using Salvo's later sanding correction. Earlier P60/P80/P120/P220 or approximately 12-hour sanding instructions are withdrawn. The revised files await further supplier review. Australian QA controls do not alter the product system.