



MASONRY FLAT – **CONCENTRATED** | TECHNICAL DATA SHEET | TDS

INTERIOR / EXTERIOR | PURE POTASSIUM SILICATE PAINT
Organic Product made from Natural Materials

PRODUCT FEATURES

Masonry Flat Concentrated is designed and made in Italy and must be diluted with clean water 20% - 30% prior to application.

Masonry Flat is a high-performance Mineral Silicate coating, ideal for masonry surfaces such as brick, stone, stucco, concrete or Hardie Board. Masonry Flat chemically combines with the substrate so it will not blister or peel, resulting in a non-film forming, easy-to-apply, flat finish.

Masonry Flat is a natural mineral product that is permeable/breathable, absorbs CO₂, and provides good anchoring power with mineral surfaces through a process called silicization (silica-lime solution reaction). It is odorless and Zero VOC and is formulated with a special binder, made from a special inorganic binder base on a mix of soluble, stabilized and purified silicates (D-SILICATE). The binders consolidated and strengthen the coated surface while decreasing the speed of absorption of liquid water maintaining its water vapor transpiration power.

FIELDS OF APPLICATION

MASONRY FLAT can be applied directly to the following Interior or Exterior surfaces without a primer to form the "hardest coating":

- Unpainted, Unsealed & Absorbent Brick
- Unpainted, Unsealed & Absorbent Stone
- Various absorbent raw mineral conglomerates

At least 1 coat of **Romabio MicroGrip Primer** is **REQUIRED** to provide a consolidating layer for MASONRY FLAT to adhere to the following Interior or Exterior surfaces:

- Hardie Board
- Glazed Brick
- Reclaimed Brick
- Painted or Unpainted Stucco
- Concrete Brick or Block
- Bagged Masonry
- Non-Absorbent surfaces
- Acrylic or Synthetic surfaces & coatings
- Aged Lime or Cured Cement Plaster
- Gypsum and Plasterboard surfaces
- New and old base hydraulic binder-based plaster
- Dry, compact, absorbent and not chalky walls surfaces, old organic or mineral coatings

GENERAL APPLICATION INSTRUCTIONS

Masonry Flat made in Italy is sold **CONCENTRATED**, therefore it must be diluted 20% to 30% with clean water. Mix diluted paint very thoroughly and apply 2 coats with a brush, roller or sprayer. Let dry 8-12 hrs between coats. KEEP READING FOR MORE DETAILED INSTRUCTIONS.

COLOR/TINTING

White/Transparent Base. Color tint up to 5% max with approved tints for White Base. 10% max with approved tints for Transparent Base. For best results, oxide pigments are recommended. Custom color tint matching is available. Always test an area for color match before touch-ups or proceeding with a different batch of tinted paint.

SHEEN / FINISH: Very Flat Finish

PACKAGING

Plastic buckets 1 Liter, 2.5 Liters, 15 Liters

TOOLS

Apply with brush, roller or with an appropriate sprayer. New sprayer tips should be used to prevent product waste and provide for a perfect finish.

Recommended Specs:

Airless Sprayer: min 3000psi w/.019" - .021" (0.48mm - 0.53mm) tip opening
HPLV Sprayer: 1.4mm - 1.5mm tip opening
Brush: Professional, high-quality, synthetic bristles
Roller: Professional, high-quality, mohair or synthetic nap

Brushes, rollers, rags/sponges should be cleaned immediately after use with water and a mild detergent or dish soap.

CONSUMPTION/COVERAGE - 1 COAT

The following is **approximate** coverage. Depth of mortar joints as well as absorbency and texture of the surface can greatly impact these estimates. Application on unpainted surfaces will absorb more paint on the 1st coat, and spread further on additional coats. Determine exact consumption by performing a test on the surface to be painted.

1 Liter: 50 ft² - 65 ft²

2.5 Liters: 200 ft² - 260 ft²

15 Liters: 1000 ft² - 1300 ft²

STORAGE

Store in a cool, dry and protected from frost. Close the open containers with care. It is best to repackage in order to completely fill a plastic container to minimize exposure to air. For best results turn full, SEALED container upside down to help prevent air entering the bucket via the lid causing spoilage or premature drying. After water has been added for dilution, ROMABIO cannot guarantee the shelf life of the product.

SHELF LIFE

The unopened, packaged product is guaranteed for 36 months, if stored undiluted at temperatures between +45° F and +90° F.



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PREPARE YOUR SURFACE

- Check the FIELDS OF APPLICATION to see if your surface requires **Romabio MicroGrip Primer** or other MINERAL-BASED primer.
- Do a simple test with water to see if your raw brick or stone can absorb water. If not, **MicroGrip Primer** is required.
- The substrate must be solid, healthy, clean and free of dust, oil and grease. If substrate temperature is above 80°F it is highly suggested to wet the surface before applying in order to cool the surface and prevent flash drying.
- The substrate must be free of rising damp, active water leaks and salt stains. If needed, parts affected by rising damp or salt stains must be eliminated and replaced with new material if necessary. Consult a professional.
- Pre-treat Algae and Mold with **Romabio Algae & Moss Cleaner** for at least 48hrs and remove the residues by brushing or with pressurized water.
- Brush or remove any efflorescence and old peeling paint.
- High layers or thicknesses of old lime-based paint and tempera paint must be removed. Brush out dust, smog or other deposits before the application and apply a coat of **Romabio EcoForte** consolidating pre-primer diluted with water at a ratio of 1:1 or consolidating pre-primer Potassium Silicate concentrate diluted with water at a ratio of 1:1.
- For absorbent, unpainted, integral brick proceed with cleaning with an acidic mixture of water (4 parts water/1 part buffered acid), brushing and removing any residue. Rinse well with clean water and wait for complete drying.
- Damaged Brick, extremely weathered 'spalled' brick, crumbling brick or brick mortar require careful assessment and special attention prior to any type of painting. Any damaged components should be evaluated and repaired or replaced by a mason.

CONDITIONS FOR APPLICATION

(Ideal environmental conditions Temp=75°F, RH=60%)

- Air temperature: Min. 50°F / Max. 88°F.
- Surface temperature: Min. 50°F / Max. 88°F.
- Relative humidity of the air: <80%.
- R.H. <65%.
- Avoid applying where there is surface condensation or directly under the sun.

DILUTION (required):

Product is **CONCENTRATED**. Use the guide below to obtain desired consistency. Do not exceed recommended limits. Do not store diluted paint.

For brush, sprayer or roller application, dilute 20% - 30%.

For each 1 Liter of MASONRY FLAT add 200mL to 300mL of clean water
For each 2.5 Liter of MASONRY FLAT add 500mL to 750mL of clean water
For each 15 Liter of MASONRY FLAT add 3L to 4L of clean water

APPLICATION

1st & 2nd COAT: MIX thoroughly immediately before use and apply MASONRY FLAT with a brush, roller or sprayer as an even layer to a dampened surface. Always keep a wet edge and avoid flash drying. This is best achieved by working in the shade or the cooler hours of the day. Allow 8 - 12 hours between coats. Work corner to corner so as not to stop halfway across a surface.

TIPS & BEST PRACTICES:

- For the ideal bond with raw brick or stone, dampen the surface immediately before application. This does 2 things; it helps draw the paint into the substrate and will help cool the brick to prevent flash drying.
- As mentioned above, working on a hot surface or in direct sunlight can cause the paint to dry at the surface instead of below the surface which will provide the best bond. To prevent "flash drying", keep your brick damp and chase the shade or work in the cooler parts of the day for the 1st coat.
- For best coverage when using a sprayer to apply MASONRY FLAT, we recommend back-brushing the 1st coat to help force the paint into the cracks and crevices of the surface.
- To simplify the dilution process, try a 25% dilution which is 1 part product to ¼ part water.
- If you have deep mortar joints and wish to fill them in before painting, you might consider using **Romabio Travertino, Marmorino GM or Lime Slurry** to even out the surface and reduce surface area to maximize paint coverage.
- Seal any uncoated metal flashing or windows to prevent copper or ferrous oxide streaking.
- For clarification of any of the above info, for additional questions, or for advice before painting under unique circumstances not covered in this Technical Data Sheet, please contact us at info@romabio.com.

DRYING TIMES

Allow a drying time between coats of at least 8 –12 hours with a maximum of 3 coats MASONRY FLAT. With lower temperature and humidity more time may be needed. Allow at least 48 hours drying time before attempting washing or applying additional products or other finishes. Times can be strongly influenced by thickness applied, temperature and ventilation during drying. Respect the drying times indicated. An overapplication on the previous coat that is not completely dry could cause wrinkling, cracking, the formation of whitish streaks and detachment of the previous coat.

Tackfree	Between Coats	Deep Curing	Final Hardening
1 hour	8 - 12 hrs	48 hrs	15 Days

Estimated based on ideal Environment (68 °F. / 65% RH)

This table is a summary example. Always carefully and competently assess the condition of the surface before starting work.



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PRODUCT LIMITATIONS

- Masonry Flat CANNOT BE APPLIED TO HORIZONTAL OR GROUND SURFACES such as steps, floors, porches, driveways, pavers, decks or anywhere there's foot traffic. Non-traffic areas such as windowsills, ledges or other places subject to a lot of moisture or pooling water, particularly with snow melts should be fully impregnated with **Mineral Shield**.
- DO NOT APPLY TO RECLAIMED BRICK. Given its unknown history and various stages of deterioration and absorption, it is rare to get consistent or uniform results.
- Brick, stone or stucco in constant contact with damp at the foundation level may absorb excessive moisture or salt nitrates which can cause rapid deterioration of masonry substrates and its coatings.
- This is not a stain blocking paint. Inherent residues can be present in masonry surfaces, such as ferrous oxides, manganese, tannins or other mineral deposits and may not present until coated. A stain blocking pre-primer may be needed to prevent their appearance. Contact Customer Support at info@romabio.com for clarification and advice.
- DO NOT apply on strongly alkaline surfaces such as uncured plasters or new cement stucco. High "calcium alkalinity" could block the penetration of the Silicate leading to the formation of a superficial crust with anisotropic behavior and would carry the risk of detachment. Wait 30 days for the surface to fully cure or do an alkalinity test of the surface before painting.
- Avoid continuous exposure of the finished surface to sprinklers or jets of water while gardening or the constant backsplash of wet soil. The ferrous metal content of the water or the wet soil can leave stains over time. Use **Mineral Shield** to protect the bottom 3' of the home and occasionally check if more is needed.
- DO NOT apply anywhere that comes in frequent contact with water, retains water, where water frequently pools.
- As a Silicates paint, MASONRY FLAT uses carbon dioxide from the air to set. The finish is hard which allows pressure washing but is inflexible which makes it unsuitable for surfaces that move such as timber, metal, and plastic.

SAFETY INDICATIONS

Directive 2004/42/CE: MASONRY FLAT (matt coatings for Exterior and Interiors Walls EU limit value for Masonry Flat (cat A/a): 30 g/l (2010) Masonry Flat contains max. 3,0 g/l VOC

Irritant / risk of serious damage to eyes / skin irritant / keep out of the reach of children / avoid contact with eyes / in case of contact with eyes, rinse immediately with plenty of water and seek medical advice / wear suitable gloves and protect eyes / face / if swallowed, seek medical advice immediately and show this container or label. The product must be transported, used and stored in accordance with current legislation concerning health and safety; let residues dry out completely and treat them as special waste. For further information, consult the MSDS

PROTECT YOUR ROMABIO FINISH

Romabio's MINERAL SHIELD is an invisible topcoat that protects Romabio mineral and lime paint finishes from damage or weathering created by water without changing the sheen of the finish or texture of the surface. Applied to a **DRY** surface a minimum of 5 days after painting with a simple garden sprayer or spray bottle, **Mineral Shield** repels water droplets but still allows water vapor to pass through, allowing the surface to breathe while preserving the beauty of a Romabio paint finish. Check occasionally to see if a simple reapplication is needed. Use **Mineral Shield** to...

- Protect the bottom 3' of your home from soil/clay stains due to rain splash-back or snow build up.
- Protect horizontal surfaces such as windowsills and ledges from pooling water issues.
- Protect areas of your home free of overhangs or gutters that experience a frequent downpouring of water.
- Protect your finish around hose bibs, downspouts, sprinklers, or any place the comes in frequent contact with water.
- Protect your finish from pollen in areas with frequently shedding trees & plants.

MAIN FEATURES

Nature of the binder: inorganic binder base on a mix of soluble, stabilized and purified silicates (D-SILICATE), modified with organic dispersion based (fossil resources replaced with sustainable biomass based on "mass balance approach").

Fossil resource saving product by using renewable raw materials and sustainable energy sources in the value chain.

NOT DANGEROUS

The directive 75/442/CEE, 08 01 production, disposal, formulation, supply, use, and removal of paints and varnishes: 10 13 04 for removal of paints and varnishes; 10 13 04 disposal of lime and hydrated lime products.

WARNING!

Do not apply any products in direct exposure to strong/hot sunlight, rain, mist, high humidity (> 80%), at dew-point formation, or in the presence of strong wind. Beware of the danger of frost overnight. If applied by roller or sprayer, protect surrounding surfaces as necessary. Protect eyes and skin from splashes of paint. Cover glass, ceramic, natural stone, brick, metal, wood, painted surfaces and glazed tiles. Clean affected areas immediately with water. Prominent elements lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD (5323) or log on to www.epa.gov/lead.

Keep out of reach of children.



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CRITERIA	INT. STANDARD	VALUE	UNIT
VOC (not including tint pigments) Ready to Use	2004/42/CE	3,0	g/l
Water Absorption Coefficient	EN 1062- 1	Medium Low (W2 0.3)	W in Kg / m ² – h 0.5
Vapor Permeability	UNI EN 1062-3	> 150	g/mq 24 hours
Chalking Resistance	ASTM-D-659	600	UV Hour - Condensation
Whiteness	CIE	80	%
pH Value	DIN 19266	10-12,5	-
Specific Gravity (23°C)	EN ISO 2811- 2	1.4+/-0.1	Kg/Lt.
Damp Abrasion Resistance	UNI 10560 (Gardner Cycles)	Washable Paint	Class I >5000
Surface Retention Smog/Dirt	UNI 10972	Very Low	≤ 3
Granulation	UNI EN 1062-1	< 100 micron	EXTRA FINE
Application Quality	UNI 10794	Good	
Hide and Cover Capacity	UNI 11271	Class 2	< 96 – < 98
Gloss Level	UNI EN ISO 2813	< 5 Gloss (85°)	Flat
Reaction to Fire	EN 13501- 1:2002	A1	Incombustible
Toxicity	CEE 88/379	0%	-

WATER CONTAMINATION HAZARD

Class 1

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of information required by the CPR, and it is classified as a non-hazardous material.

PRODUCT CONTAMINATION HAZARD

CODE CER / NORMATIVE EAC / Decision commuted by the Commission n. 2000/532/CE

WARNING

Keep out of reach of children. In case of contact with eyes and skin, wash immediately with plenty of water. In cases of consumption, consult a Doctor or call the CDC Poison Center. 1-800-222-1222.

DISPOSAL

Do not enter product in its original concentration into drains or open waters. Do not store at public waste disposal sites. In case of conduction into adapted biological purification plants no disturbances need be expected. The preparation has been estimated by conventional method (calculated-procedure) of EG directive 1999/45/EG and is classified as non-hazardous for the environment.

Dispose according to local regulations. Empty cans should be disposed of according to local regulations; plastic buckets are 100% PP, no. 5, approved for food storage; 100% recyclable if cleaned thoroughly prior to recycling.

TESTING & CERTIFICATIONS

Masonry Flat has passed these tests and received these certifications: [A+ rating for French VOC Test - Health Product Declaration](#); and [CA1350 / California Department of Public Health \(CDPH\) Standard Method v1.1-201](#). For all up to date testing, [visit here](#).

This Technical Data Sheet is based on data collected on the basis of technique and experience. Given the multiplicity of use of the product they cannot be binding. This information shall not constitute any legal obligation and no obligation from the seller or point of purchase, or any agreements inferred by employees who sell this product. Insurance or guarantees issued by our employees should always be confirmed separately in writing. Any information about product adaptability and use of the product, must be verified by user prior to purchase. Check the exact consumption of product for the surface where product may be applied to determine the amount of product needed. The user must verify color matching before starting work. No refunds or exchanges will be provided for tinted products after they have been consumed or applied.

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