



MOXIE SHIELD 1400

MASONRY BLOCK SEALER

FREQUENTLY ASKED QUESTIONS

Architects · Engineers · Contractors · Producers · Owners · Specifiers



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PRODUCT OVERVIEW

Moxie Shield 1400 Masonry Block Sealer

Moxie Shield 1400 Masonry Block Sealer is a ready-to-use, water-based sealer formulated for large-pore masonry block, concrete masonry units, and porous concrete surfaces. Designed for vertical, above-grade applications, it provides long-term weather protection for interior and exterior installations.

Moxie Shield 1400 Masonry Block Sealer is applied to the surface of concrete block and reacts to form a hard silicone resin within the surface of the material. This treatment creates a breathable, water-repellent barrier rated for wind-driven rain up to 30 mph, reducing liquid water absorption and limiting efflorescence, alkali attack, surface dusting, and freeze-thaw deterioration in exposed environments.

50+	Up to 3/4"	30 mph	VOC = 0
Years in the field	Penetration in block	Wind-driven rain rated	EPA 24 certified

Questions for Architects

Substrate compatibility, above grade applications, and long-term facade performance.

ARCHITECTS

What substrates is Moxie Shield 1400 Masonry Block Sealer specifically formulated for?

Moxie Shield 1400 Masonry Block Sealer is engineered for large-pore masonry substrates — concrete masonry units (CMU), manufactured stone, gunite, shotcrete, mortar, grout, and ornamental concrete surfaces. The formulation is calibrated for the larger, more open pore structure of block and CMU, where greater product volume per unit area are needed to achieve effective protection.

ARCHITECTS

Does it alter the appearance or surface texture of masonry block or concrete?

No. Moxie Shield 1400 Masonry Block Sealer is a surface penetrating treatment, not a surface coating or film-former. It does not change the color, sheen, or surface texture of CMU, stone, or concrete surfaces. The treated surface looks identical to the untreated surface — important for exposed architectural block, split-face CMU, decorative concrete, and ornamental masonry applications.

ARCHITECTS

What building types and exterior assembly types is it most commonly specified for?

Moxie Shield 1400 Masonry Block Sealer is appropriate for any exposed CMU, concrete block, or porous concrete facade. Common applications include industrial and warehouse facilities, institutional buildings with exposed block construction, split-face CMU feature walls, concrete retaining and site walls, gunite and shotcrete pools or water features, mortar joints in masonry assemblies, and ornamental concrete elements in landscape and hardscape environments.

Questions for Engineers

Chemistry, penetration depth, wind-driven rain performance, and compliance testing.

ENGINEERS

What is the mechanism of action and how does it differ from silane/siloxane sealers?

Moxie Shield 1400 Masonry Block Sealer is a water-based inorganic sealer. When applied to masonry block or porous concrete, it penetrates in and onto the pore structure and undergoes a condensation reaction with moisture and existing minerals within the substrate, converting from liquid to a hard silicone resin within 24 hours. Field and laboratory testing shows superior performance over silane/siloxane sealers formulated with alcohol or petroleum solvents.

ENGINEERS

What penetration depth is achieved in concrete masonry units versus denser substrates?

Moxie Shield 1400 Masonry Block Sealer achieves penetration up to 3/4 inch in concrete block and large-pore masonry, ranging down to 1/4 inch in dense, fine-pored masonry products and concrete. Coverage rate is 50 to 100 sq ft per gallon for two coats, depending on substrate porosity.

ENGINEERS

What is the rated wind-driven rain performance?

Moxie Shield 1400 Masonry Block Sealer produces a breathable, water-repellent surface rated for wind-driven rain up to 30 miles per hour. This is a specific, tested performance threshold — particularly relevant for exposed CMU facades in coastal, high-rise, or open-site environments where lateral wind pressure drives moisture into masonry wall assemblies.

ENGINEERS

What ASTM compliance has been tested, and what does each standard address?

Moxie Shield 1400 Masonry Block Sealer is tested and compliant with ASTM C666 (freeze-thaw resistance) and ASTM D3960 (VOC content). It meets EPA USDA VOC = 0 and is USDA approved for use in food processing areas. It complies with OSHA 29 CFR 1910. All compliance documentation is available for project submittals.

ENGINEERS

Does it provide dust-proofing benefits, and how does that work?

Yes. Moxie Shield 1400 Masonry Block Sealer is specifically documented as a dust-proofing compound in addition to its water repellent and efflorescence inhibitor functions. The silicone resin formed within the pore structure binds and consolidates surface particles, reducing dusting without creating a surface film. This is a meaningful performance benefit in industrial, warehouse, and below-grade environments where floor and wall dusting creates housekeeping and equipment contamination issues.

Questions for Contractors and Applicators

Surface prep, application method, two-coat requirements, and critical compatibility warnings.

CONTRACTORS AND APPLICATORS

What is the correct application method and equipment for large-pore masonry?

Apply using an airless or low-pressure (MESTO type) sprayer for best results on CMU and block surfaces. A brush or roller may also be used. Do not use compressed air — the product will foam. Saturate the surface thoroughly, allowing a 12-inch rundown during application. Work in 5-foot segments on large wall areas. Coverage rate is 50 to 100 sq ft per gallon for two coats.

CONTRACTORS AND APPLICATORS

What is the wet-on-wet requirement and why is it especially important on block?

The second coat must be applied while the first coat is still damp. On porous CMU substrates, the first coat can be absorbed and begin curing faster than on denser materials. If the first coat dries, the surface will white over. Work in sections of no more than 50 sq ft at a time and increase vigilance on hot, dry, or windy days when evaporation accelerates.

CONTRACTORS AND APPLICATORS

What surface preparation is required before application?

All cracks and construction faults must be repaired before treatment. The surface must be thoroughly cleaned and power washed — no detergents. Allow a minimum of 48 to 72 hours drying time. The substrate must be completely dry and clean at the time of application. Do not apply to moist or wet surfaces, in rain, in direct sunlight, in windy conditions, or when ambient temperatures are below 50 degrees F / 10 degrees C.

CONTRACTORS AND APPLICATORS

Which adjacent materials or surfaces must be protected during application?

Due to the high pH of the formulation, Moxie Shield 1400 Masonry Block Sealer must not come in contact with glass, porcelain, ceramic tile, aluminum, zinc, or galvanized steel. Contact will permanently etch or erode the surface. Any accidental contact must be rinsed immediately. The product must not contact plant life or leather.

CONTRACTORS AND APPLICATORS

What are the storage and shelf life requirements?

Store in clean steel or plastic containers, sealed, above 40 degrees F / 4.5 degrees C. Do not allow the product to freeze. Keep separate from acids, reactive metals, and ammonium salts. The product has indefinite shelf life when stored correctly. The formulation is non-toxic, non-flammable, and not regulated as hazardous for transportation under DOT.

Questions for Masonry Producers and Manufacturers

CMU factory application, product differentiation, market segments, and supply.

PRODUCERS AND MANUFACTURERS

Can Moxie Shield 1400 Masonry Block Sealer be applied at the CMU manufacturing facility?

Yes. Factory pre-application on concrete masonry units is a viable and commercially attractive approach. Factory conditions provide consistent substrate porosity, controlled application environment, and eliminate field application variability. Pre-treated CMU units arrive on site already protected against moisture intrusion, efflorescence, dusting, and freeze-thaw damage — a meaningful product differentiation for producers competing in quality-conscious commercial and institutional markets.

PRODUCERS AND MANUFACTURERS

What is the dust-proofing benefit and how does it translate to product positioning?

The documented dust-proofing function — unique to the 1400 in the Moxie Shield line — is a compelling differentiator for CMU producers targeting industrial, warehouse, institutional, and below-grade applications where surface dusting is a known maintenance and contamination problem. Pre-treated, dust-proofed CMU represents a premium product tier with measurable operational benefits for end users.

PRODUCERS AND MANUFACTURERS

What market segments represent the strongest opportunity for Moxie Shield 1400 Masonry Block Sealer?

The documented substrate range spans industrial and warehouse construction, institutional buildings with exposed block, municipal and civic facilities, commercial and retail construction, ornamental landscape and hardscape, and below-grade construction. The wind-driven rain rating at 30 mph makes it particularly relevant for coastal interior and high-exposure sites.

PRODUCERS AND MANUFACTURERS

What packaging formats are available for production-scale supply?

Moxie Shield 1400 Masonry Block Sealer is available in 1-gallon pails, 5-gallon pails, 55-gallon drums, and 275-gallon totes. Contact Moxie's sales team at (844) 845-1975 or sales@moxieinternational.com to discuss volume pricing, packaging options, and production-scale supply logistics.

Questions for Owners

Why masonry block needs protection, what this product does, and long-term value.

OWNERS

Why does concrete masonry block need to be sealed?

CMU and concrete block are among the most porous building materials in common use. Unsealed, they absorb substantial volumes of rainwater and ground moisture, which migrates through the block and mortar joints, carrying soluble salts to the surface as efflorescence, supporting biological growth, activating alkali reactions, and creating the freeze-thaw cycling that causes progressive surface deterioration. The cost of treating masonry block is a fraction of the cost of repointing, resurfacing, or replacing deteriorated material.

OWNERS

What does Moxie Shield 1400 Masonry Block Sealer protect against specifically?

It creates a penetrating, breathable water-repellent barrier up to 3/4 inch deep within block and mortar that resists liquid water absorption — including wind-driven rain up to 30 mph. Protection includes efflorescence and alkali salt migration, surface staining, mildew and fungus growth, freeze-thaw flaking and spalling, surface dusting on block and concrete floors and walls, and deterioration from contaminant penetration.

OWNERS

What is the dust-proofing benefit and why does it matter?

Surface dusting from CMU and poured concrete is a common and persistent maintenance problem in warehouses, industrial facilities, parking structures, and below-grade spaces. Moxie Shield 1400 Masonry Block Sealer's silicone resin consolidates surface particles within the pore structure, eliminating the source of dusting without creating a surface coating that can peel or wear. For facility owners, that translates directly to reduced cleaning costs and extended equipment life.

OWNERS

Is this the right product for an existing building or only for new construction?

Moxie Shield 1400 Masonry Block Sealer is designed for both existing and new masonry surfaces. For owners of existing CMU, block, or poured concrete buildings — particularly those showing early signs of efflorescence, staining, or surface deterioration — it is an effective remediation and long-term protection tool.

OWNERS

Is there a manufacturer guarantee?

Yes. Moxie Shield 1400 Masonry Block Sealer is guaranteed to perform and be manufactured per the specifications contained in Moxie Engineering documentation. With over 50 years of field performance on building and construction materials, Moxie's guarantee is backed by a documented track record.

Questions for Specifiers

Specification language, performance thresholds, and documentation for large-pore masonry water repellent treatment.

SPECIFIERS

Which CSI division and section does Moxie Shield 1400 Masonry Block Sealer fall under?

Moxie Shield 1400 Masonry Block Sealer is specified under Division 04 — Masonry, within sections covering CMU and concrete masonry — typically Section 04 22 00 (Concrete Unit Masonry) for new construction, or Section 04 01 00 (Maintenance of Masonry) for existing assemblies. For concrete substrate applications, it may be specified under Division 03 — Concrete. Moxie's technical team can provide CSI-formatted specification language for your project structure.

SPECIFIERS

What performance thresholds can be written into the specification?

Moxie Shield 1400 Masonry Block Sealer supports the following specification thresholds: inorganic silicone resin chemistry performing as a breathable water-repellent barrier with vapour transmission preserved, wind-driven rain resistance rated to 30 mph, ASTM C666 freeze-thaw compliance, ASTM D3960 VOC compliance at zero VOC, dust-proofing function, and no visible alteration of surface color or texture.

SPECIFIERS

How do I specify this to exclude film-forming sealers and solvent-based alternatives?

Require penetrating inorganic chemistry forming a silicone resin bond within the substrate surface, zero VOC per ASTM D3960, preserved moisture vapour transmission, wind-driven rain resistance to minimum 30 mph, and ASTM C666 freeze-thaw compliance. Film-forming acrylics and elastomerics cannot meet the breathable and penetrating criteria. Solvent-based silane/siloxane sealers cannot meet the zero VOC and inorganic chemistry criteria.

SPECIFIERS

Is Moxie Shield 1400 Masonry Block Sealer appropriate for LEED projects?

Yes. Moxie Shield 1400 Masonry Block Sealer qualifies for LEED credits through its zero VOC formulation, non-toxic and non-hazardous inorganic chemistry, USDA food processing area approval, and contribution to building durability and extended masonry lifecycle. LEED documentation is available to support your submittal package.

SPECIFIERS

What documentation is available for project submittals?

Available submittal documentation includes: product data sheet, safety data sheet (SDS), ASTM C666 freeze-thaw test data, ASTM D3960 VOC documentation (VOC = 0), USDA food processing area approval, OSHA 29 CFR 1910 compliance, LEED credit qualification documentation, application procedures sheet, and manufacturer's guarantee documentation. All are available upon request from Moxie's technical team.

SPECIFIERS

Are there project references available?

Yes. Moxie Shield 1400 Masonry Block Sealer has over 50 years of documented field use across industrial, institutional, commercial, and civic project types. References from architects, specifiers, and contractors are available upon request. Contact Moxie's sales team at (844) 845-1975 or sales@moxieinternational.com.

Documents available on request

Product Data Sheet

Full technical specifications

Safety Data Sheet (SDS)

Handling, pH, and compatibility warnings

ASTM C666 Compliance

Freeze-thaw resistance testing

ASTM D3960 / VOC Documentation

EPA VOC = 0 certification

USDA Food Processing Approval

Non-toxic, non-hazardous certification

LEED Documentation

Credit qualification and calculation sheet

Application Procedures Sheet

Two-coat wet-on-wet method guide

Coverage Rate Guide

By substrate type and porosity

Surface Compatibility Warning Sheet

Materials to protect during application

CSI Specification Language

Div. 03, Div. 04, and Div. 07 formats

Project References

50 years across CMU, concrete, gunite, and ornamental masonry