



MONOBASE BC CONCENTRATE/ MONOSIDERAL REINFORCED WITH POWERBASE PLUS

THE ULTIMATE HARD-COAT, INTEGRALLY COLORED
STUCCO ‘OLD WORLD’ DECORATIVE SYSTEM

1.0 DESCRIPTION

1.1 General

Monobase BC Concentrate/Monosideral hard-coat stucco system reinforced with **Powerbase PLUS** is a cementitious exterior wall coating system yielding a durable crack resistant, water-repellent finish system. A blended composition of Portland cement, lime and non-synthetic chemical additives, **Monobase BC Concentrate** and **Monosideral** perform like a protective skin that does not trap moisture, thus allowing substrates to breathe naturally and providing the unique balance of water repellency and exceptional vapor permeability. The combination of **Monobase BC Concentrate** and **Monosideral** is the ultimate traditional approach in exterior decorative coating. The unique and revolutionary composition and reinforcing fibers of **Monobase BC Concentrate** combined with the very specific integral color formulation of **Monosideral**, yield a durable, fade resistant, colored finish to be applied by hand troweling or machine spraying.

Monosideral is available in many attractive integral colors while custom colors are available upon request. The precise blend of calibrated sand, fibers and chemical additives, allows for vapor permeability and superb resistance to temperature variations.

2.0 MATERIALS

2.1 Coatings

Monobase BC Concentrate (Base Coat)

Monobase BC Concentrate consists of a factory-blended Portland cement, lime, additives and proprietary admixture, available as an 80 lb. (36.3 kg) bag of factory blended concentrate mix requiring only the addition of potable water and coarse stucco sand at the job site.

Powerbase PLUS

An acrylic co-polymer base, **Powerbase PLUS** is mainly composed of white cement, aggregates, hydraulic binders, reinforcing fibers, additives (water repellent agents, etc...) and proprietary

admixture providing flexibility. **Powerbase PLUS** is available as a 55 lb. (25 kg) factory blended bag only requiring the addition of potable water at the job site.

Glass Fiber Fabric

A nominal 4.8 ounce per square yard, symmetrical, interlaced, open-weave glass fiber fabric mesh made with minimum 25 percent by weight alkaline resistant fiberglass fiber is to be used with the installation of **Powerbase PLUS** over the entire surface to be finished.

Monosideral (Finish Coat)

Monosideral consists of a factory-blended white Portland cement with pigments, additives (water repellent agents, UV resistant agents) and proprietary admixture. **Monosideral** is available as a 66 lb. (30 kg) bag of factory blended pre-sanded mix requiring only the addition of potable water at the job site.

Products Standards:

- Portland Cement C-150, Type 1. Federal SS-C-1960/3 – Base coat
- Portland Cement C-150, Type 1. Federal SS-C-1960/3, White Cement- Finish Coat
- Polypropylene ½ “ fibers, alkaline-resistant – Base Coat
- Type S Hydrated Lime : ASTM C-206 & ASTM C-207, Type S
- Sider-Oxydro products complies to ASTM C-926

2.2 Accessories

Metal Furring and Lath

The lath and accessories shall comply with ASTM C-847 and zinc coated (galvanized) steel meeting ASTM C-525 and shall be of 1.75, 2.5 or 3.4 weight per square yard as required by the applicable building code. Perform work in accordance with ASTM C-841, ASTM C-847, ASTM C-1063 and ML/SFA specifications. Use fasteners recommended by fastener manufacturer for securing lath to wood, steel supports or bricks. Fasteners shall be spaced at a minimum of 6” inches and shall provide a minimum 1/8” (3.18 mm) clearance from the substrate after installation. The maximum overall wall coating thickness, using the minimum wire noted in this section, shall be ½” (12.7 mm). Companies specializing in performing the installation of Metal lath and trim accessories shall be approved and experienced, performing the installation according to the applicable building code.

Wire-Fabric Lath

Wire-fabric lath shall be a minimum Number 20 gauge; 1” (25.4 mm) galvanized steel. The furring and self-furring requirements shall be as described for metal lath in section 2.2. Wire-fabric lath shall be in compliance with ASTM 933-80 (welded) and ASTM 1032-86 (woven).

Weather-Resistive Membrane

A weather-resistive membrane is required over all substrates; exceptions being concrete, masonry surfaces and specific insulation board products. The weather-resistive membrane shall be minimum Grade D building paper complying with Federal Specification UUB-790A. The weather-resistive membrane shall be installed according to the applicable building code.

Plywood

The plywood substrates shall be in compliance with US DOC PS 1-95 and shall be minimum 7/16" (11.1 mm) in thickness.

Oriented Strand Board

Oriented Strand Boards shall be in compliance with US DOC PS-2-95, the American Plywood Association for Exposure 1 and shall have a minimum thickness of 7/16" (11.1 mm).

Gypsum Sheathing Board

The boards shall be water-resistant core gypsum sheathing in compliance with ASTM C 79-95.

Fiberboard

Asphalt-impregnated fiberboard shall be in compliance with ANSI/AHA A194.1-1985 as a regular density and shall have a minimum thickness of 1/2" (12.7 mm).

Caulk

The acrylic latex sealant shall be in compliance with ASTM C-834 and installed according to local building codes. Penetrations through the coating shall be caulked to prevent water penetration. Allow 48 hours minimum drying time prior to installing the sealant.

3.0 MIXING INSTRUCTIONS

3.1 Monobase BC Concentrate

Mix in a clean standard stucco-mixing machine for no less than 5 minutes in the following steps to achieve a consistent, homogeneous mix:

- Adequate amount of water for a thick workable mud
- 1 bag of **Monobase BC Concentrate**
- 2 to 3 parts coarse stucco sand (by weight: 3 full '5 gallon buckets = ~ 15 heaping square shovels')

Do not over-mix. Repeat the mixing procedure and add the same amount of water with every batch. Do not re-temper the material in the mixer nor use partially set or frozen material in the mix.

3.2 Powerbase PLUS

Approximately 6 to 7 quarts (1 3/4 gallons) of clean cool potable water is to be added per bag of **Powerbase PLUS**. Mix in a clean pail with a 1/2 "drill and paddle for 3 to 4 minutes to yield good plasticity and a homogeneous mix. Allow mix to rest for 3 to 4 minutes then remix adding water to adjust workability. Do not re-temper the material nor use partially set or frozen material in the mix.

3.3 Monosideral

Approximately 5 quarts (1 1/4 gallon) of clean potable water is to be added per bag of **Monosideral**. Mix in a clean standard stucco-mixing machine for a maximum of 10 minutes to yield good plasticity and a homogeneous mix. Do not over mix. For best results, pour 10 quarts (2.5 gallons) of potable water in the mixer, followed by 2 bags of **Monosideral**. Then add the remaining required water and 2 more bags. Allow to mix until a good homogeneous mix is achieved. Repeat the mixing procedure and add the same amount of water with every batch to avoid color variations. Do not re-temper the material in the mixer nor use partially set or frozen material in the mix. This may cause color variation.

4.0 INSTALLATION

4.1 First Step: Base Coat - Monobase BC Concentrate

i. Application over Concrete and Masonry Surfaces

Surface Preparation

Surfaces must be free of all bond-inhibiting materials, including dirt, efflorescence, from form oils and other foreign particles. Paint, loose or damaged material must be removed by water blasting, sandblasting or mechanical wire brushing and repaired. Irregular surfaces must be resurfaced, patched or leveled to required tolerance and smoothness. Refer to ASTM C-926 for complete details on preparation and required condition of surfaces to receive Portland cement stuccos and recommended construction practices when installing stucco. Dampen excessively dry and overheated substrates before application. On certain substrates, such as porous surfaces & older concrete, the use of bonding agent such as Sider-Resin M50 is recommended.

Trowel Application

Apply **Monobase BC Concentrate** directly over concrete, masonry or lath surface with a clean, stainless steel trowel in one or two coats for a thickness of 3/8" (9.53 mm) minimum according to substrate and surface conditions. Once applied, the working time for material is up to 20 minutes, according to ambient temperatures and surface condition. Application thickness varies depending on the pattern or texture desired.

Spray Application

Apply **Monobase BC Concentrate** with a conventional plaster pump or a hand-held spray gun (refer to section 5.7) directly over the concrete, masonry or lath surface. Hold the spray nozzle at the same distance and move with a steady, even stroke building to the desired thickness. Apply an even coat to ensure full coverage in a one coat for a total thickness of 3/8" (9.53 mm) thickness, according to the substrate and surface conditions. Once applied the working time is up to 20 minutes according to ambient temperatures and surface condition.

Important: Apply **Monobase BC Concentrate** in a continuous application, always working to a wet edge to eliminate cold joints. Arrange for the completion of an entire area. Avoid installation in direct sunlight. It is recommended that newly applied **Monobase BC Concentrate** be fogged and kept damp for 48 hours.

ii. Application over Brick

Metal lath shall be installed as described in Section 2.2 of this document. Use corrosion-resistant fasteners for lath attachment and allow a minimum fastener penetration of 1" (25.4 mm) into the brick substrate. **Monobase BC Concentrate** shall be applied with a stainless steel trowel or spray equipment directly over the lath to a minimum thickness of 3/8" (9.53 mm) which shall be embedded in the coating and completely covered. Level the coating until a smooth plumb surface is achieved.

iii. Application over Solid Backing

A weather resistive membrane is installed as described in Section 2.2 of this document. The lath is installed as described in Section 2.4 of this document. Use corrosion-resistant fasteners for lath attachment and allow a minimum fastener penetration of 1" (25.4 mm) into wood framing.

Monobase BC Concentrate shall be applied with a stainless steel trowel or spray equipment

directly over the lath to a minimum thickness of 3/8" (9.53 mm), which shall be embedded in the coating and completely covered. Level the coating until a smooth plumb surface is achieved.

iv. Plywood, Oriented Strand Board, Gypsum Sheathing, Fiberboard...

All shall be fastened directly over wood or steel framing in accordance to the applicable building code. The weather-resistive membrane, lath and coating shall be installed according to Section 2.2 of this document.

4.2 Second Step - Powerbase PLUS

Apply **Powerbase PLUS** directly over **Monobase BC Concentrate** with a clean, stainless steel trowel to a uniform thickness of 1/16" (1.5 mm) to 1/8" (3 mm). Lay standard 6 oz mesh immediately over wet **Powerbase PLUS** and trowel into place. Allow first coat of **Powerbase PLUS** with embedded mesh to dry for 24 hours before the application of the finish coat. The mesh should be fully embedded and no pattern of the mesh should be visible beneath the surface of **Powerbase PLUS**.

Limitations

Apply **Powerbase PLUS** when surface and ambient temperatures are above 45° F (8° C) and below 95° F (35° C) during application and drying period. Do not apply to overheated, excessively dry or frozen substrates, or during periods of high winds. **Powerbase PLUS** should not be applied below grade or water immersed surfaces. Distance to grade varies with climate and local building codes. Allow sufficient distance to prevent dirt, snow, ice and puddling water to be in contact with the coatings. Parapets should be protected with coping. Protect the coating from rain, freezing for at least 24 hours and from uneven and excessive evaporation during hot temperatures. Due to the natural ingredients which make-up **Powerbase PLUS** or the nature of the substrate, the development of efflorescence may naturally occur and appear on the surface of **Powerbase PLUS**.

4.3 Finish Textured Coat – Monosideral Application

Trowel Application

Allow **Powerbase PLUS** to dry for approximately 3 days. Mist **Powerbase PLUS** surface with water prior to **Monosideral** application. Apply **Monosideral** directly over **Powerbase PLUS** surface with a clean, stainless steel trowel in one coat at a thickness of 3/16" (4 mm) minimum thickness to 1/4" (6 mm) maximum thickness according to substrate and surface conditions. Once applied the working time is up to 20 minutes according to ambient temperatures and surface condition. Trowel **Monosideral** to required tolerance. A fine sand finish texture may be achieved using a sponge, wood or plastic float.

Spray Application:

Allow **Powerbase PLUS** to dry for approximately 3 days. Mist **Powerbase PLUS** surface with water prior to **Monosideral** application. Apply **Monosideral** with a conventional plaster pump (refer to section 5.6 for pump information) directly over the **Powerbase PLUS** surface. Hold the spray nozzle at the same distance and move with a steady, even stroke building to the desired thickness. Apply an even coat to ensure full coverage in a one coat for a total thickness of 3/16" (4 mm) minimum thickness to 1/4" (6 mm) maximum thickness according to the substrate and surface conditions. Once applied the working time is up to 20 minutes according to ambient temperatures and surface condition. Trowel **Monosideral** to required tolerance and texture with a sponge, wood or plastic float.

Important: Apply **Monosideral** in a continuous application, always working to a wet edge to eliminate cold joints. Arrange for the completion of an entire area. Avoid installation in direct sunlight. It is recommended that newly applied **Monosideral** be fogged and kept damp for 48 hours.

Limitations

Apply **Monobase BC Concentrate** and **Monosideral** when surface and ambient temperatures are above 45° F (8° C) and below 95° F (35° C) during application and drying period. Do not apply to overheated, excessively dry or frozen substrate, or during periods of high winds.

Monobase BC Concentrate and **Monosideral** should not be applied on horizontal, below grade or water immersed surfaces. **Monobase BC Concentrate** is not recommended for applications to horizontal surfaces with the exception being that it can be applied on ceilings only over metal lath. Distance to grade varies with climate and local building codes. Allow sufficient distance to prevent dirt, snow, ice and puddling water to be in contact with the coatings. Parapets should be protected with coping. Protect the coating from rain, freezing for at least 24 hours and from uneven and excessive evaporation during hot temperatures by moist curing. Due to the natural ingredients which make-up **MonoBase BC Concentrate** and **Monosideral** or the nature of the substrate, the development of efflorescences may naturally occur and appear on the surface of **Monobase BC Concentrate** and **Monosideral**. Please refer to the maintenance specifications for clean-up.

5.0 MISCELLANEOUS

5.1 Packaging

Monobase BC Concentrate: 80 lb. (36 kg) bag of concentrate powder (paper bag with moisture barrier).

Powerbase PLUS: 55 lb. (25 kg) bag of powder in a 3-ply paper bag with moisture barrier.

Monosideral: 66 lb. (30 kg) bag of powder (paper bag with moisture barrier).

5.2 Coverage

MonoBase BC Concentrate:

~ 60 to 65 sq. ft. per bag of at 3/8"

55 to 65 square feet per **PowerBase PLUS** bag at 1/8" (3 mm) thickness

Monosideral:

~ 30 to 35 sq. ft. per bag at 1/4" thickness

~ 45 to 50 sq. ft. per bag at 3/16" thickness.

(Coverage is approximated and is given for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions and application techniques.)

5.3 Storage and Shelf Life

Shelter in a dry environment and away from extreme heat, direct sunlight, rain and freezing. Shelf life is 6 months in the original sealed packaging, properly sheltered.

5.4 Control Joints

Install control joints as specified by the design professional, builder and conforming to conventional three-coat plaster details or the applicable building code. As a minimum, control joints are required in areas where structural movement occurs, at floor line in wood frame construction and at building expansion and openings

5.5 Professional Qualifications

Installation shall be performed by contractors with a minimum of 5 years documented experience in cement plastering or approved by Sider-Oxydro, Inc. All applicators should be able to provide several references from general contractors, architects or other applicable references for review by Sider-Oxydro, Inc.

5.6 Technical Application Assistance

Contact Sider-Oxydro, Inc. at **Toll Free: 888-743-3750** for all technical inquiries.

5.7 Hand-Held Spray Gun and Plaster Pumps

Approved hand-held spray guns and manufacturers

- Sablon spray gun (Ref # 32277 or # 32278) by Maco-Meudon
- Wall model 4 holes spray gun by ACPO
- Spotting model by ACPO
- Wall model 1 hole by ACPO

Recommended plaster pumps and manufacturers

- P11 Series, Tommy Gun A3 series, S5 Rotor/Strator Pumps & Mixers by Putzmeister
- And most mortars and plasters sprayers and mixers.

Contact Sider-Oxydro, Inc. for availability and additional information.

5.8 Clean Up

Monobase BC Concentrate, Powerbase PLUS and **Monosideral** clean up with water prior to drying. Clean tools and equipment after use with water. Clean up and remove all debris and materials from the site caused by the installation according to federal, state and local regulations and dispose of waste in an approved landfill.

5.9 Commercial Names

MONOBASE BC CONCENTRATE

POWERBASE PLUS

MONOSIDERAL

*And now, enjoy using **MONOBASE BC CONCENTRATE, POWERBASE PLUS** and **MONOSIDERAL** and benefit from this revolutionary technology developed by Sider-Oxydro, Inc., innovative leaders in the construction industry since 1937.*

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