

UNIVERSAL 1023

ONE PLANET. ONE PRODUCT. MULTIPLE USES



Feather-Edge Spalled & Pitted Concrete



Resurfaces Concrete up to 6" (Horizontal)



Vertical Patching & Repairs up to 2"



Brushable, Cementitious, Water-Resistant Coating



Crack Resistant Finish Coat over Masonry & Concrete



Basecoat for Stucco, Thin Brick & Thin-Stone Veneer



Fast-Setting, Adhesive Mortar



Bedding Mortar for Stone Treads, Coping and Slate



Pointing Mortar for Brick & Stone Veneers

MADE IN

U. S. A.

"The Professional's Choice"

UMACO
INC.

Toll Free: 800-442-5535
Phone: 978-453-8881
www.umaco.com

UNIVERSAL 1023

ONE PLANET. ONE PRODUCT. MULTIPLE USES

UNIVERSAL 1023 is a fast setting, multi-purpose, cement-based, fiber reinforced, high-strength & water-resistant material which may be used to patch, repair and resurface concrete surfaces from a feather-edge up to 6" thick for horizontal applications and up to 2" thick for vertical applications. May also be brush or spray applied as a cementitious, water-resistant coating.



- Feather-edge up to 6" thick for horizontal applications
- Vertical patching & repairs up to 2"
- Polymer-modified
- Minimal shrinkage
- Crack resistant finish
- Water-resistant
- Fast-setting (30 minutes)
- Resurfaces spalled & pitted concrete
- Patch & repair concrete steps, headers & sills
- Underlayment for a variety of floor coverings & coatings
- Decorative spray deck when applied over old & worn concrete
- A basecoat for stucco, thin-brick & thin-stone veneer systems
- A crack resistant finish coat troweled over concrete & masonry walls
- Fast-setting adhesive for thin-stone & thin-brick veneers
- May be brush or spray applied as a cementitious, water-resistant coating
- Bedding mortar for stone treads, coping and slate
- Pointing mortar for brick & stone
- May be used as a glass block mortar
- Can be blended with most mortar & cement colors
- May be top coated with Color-Seal or Paver-Saver Plus which are both available in a variety of colors.
- Retarder available to slow set time
- Available in Gray & White

UNIVERSAL 1023

ONE PLANET. ONE PRODUCT. MULTIPLE USES

UNIVERSAL 1023 is a multi-purpose product which may be used for many different applications. Refer to the index below in order to find the instructions pertaining to your specific application. Before using this product, please refer to Safety Data Sheet (SDS) which lists all the safety precautions.

Index by Application	
Page 4	Horizontal Repairs & Resurfacing
Page 5	Vertical Patching & Repairs
Page 6	Finish-Coat over Concrete & Masonry
Page 7	Finish-Coat over Cement Board
Page 8	Finish-Coat over Dry Stacked Block
Page 9	Finish-Coat over Rigid Insulation Board
Page 10	Basecoat over Galvanized Metal Lath
Page 11	Basecoat for Stucco Finishes over EPS Board
Page 12	Brush Applied, Water-Resistant Coating
Page 13	Fast Setting Adhesive for Thin-Stone Veneers
Page 14	Bedding Mortar for Stone Treads, Coping and Slate
Page 15	Fast-Setting Thinset for Tile & Thin-Brick
Page 16	Glass Block Mortar
Page 17	Pointing Mortar for Brick & Stone Veneers
Page 18	Decorative Spray Deck over Concrete
Page 19	Technical Data, Warnings and Warranty
Page 20	Color-Seal & Paver-Saver Plus Color Charts
Page 21-24	Other Quality Umaco Products

UNIVERSAL 1023

Horizontal Repairs & Resurfacing



UNIVERSAL 1023 produces a durable, polymer-modified, high-strength and water-resistant finish when applied as a patching, topping, resurfacing & underlayment material for horizontal applications from a feather-edge up to 6".

SURFACE PREPARATION

Concrete surfaces must be sound, clean and dry. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE**

PAINT REMOVAL WARNING ON

PAGE 19. Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

Wood Floors

Interior use only. Only apply over CDX, exterior grade plywood which is at least 5/8" thick. Plywood must be clean, dust free, rigid and well fastened. Nail or screw heads must be set level with or below the surface. Make sure that the surface is clean and dust free then prime with Umaco Bond All Exterior.

PRIMING

In order to achieve exceptional bond strength and provide an easier working surface, prime the surface with Umaco Bond All Exterior prior to the placement of the Universal 1023. Wood floors must be primed with Bond All Exterior.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Apply a tight coat with a stainless steel trowel firmly pressing the material into all voids and pores. Immediately double back and apply a second coat from a feather-edge up to 6". The finished surface may be troweled, floated or broom finished once it has stiffened to the desired consistency.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out. Universal 1023 will be ready for light traffic in 2-4 hours (at 70°F) and can be put into service within 12 hours. Thick patches may require up to 24 hours to cure depending on application thickness, temperature and other conditions.

Floor Coverings

Once Universal 1023 has sufficiently hardened (and can be worked on without damaging the surface), most standard floor coverings such as

ceramic tile, VCT, sheet vinyl and carpeting can be installed. Flooring which requires special adhesives (such as epoxies or urethanes) can be installed after 24 hours. Always do a test patch to ensure the adhesive's compatibility and always follow the manufacturer's recommendations.

Umaco Color-Seal

Universal 1023 can be top-coated after 24 hours (at 70°F) with Umaco Color-Seal. See page 20.

Umaco Paver-Saver Plus

Universal 1023 can be stained after 24 hours (at 70°F) with Umaco Paver-Saver Plus. See page 20.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

Average Depth	Coverage
1/4".....	25 ft ²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application.
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- All control and expansion joints must be carried through
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

For technical assistance call 978-453-8881

www.umaco.com



UNIVERSAL 1023

Vertical Patching & Repairs



UNIVERSAL 1023 may be used as a durable, polymer-modified, high-strength and water-resistant patching and repair mortar for vertical surfaces up to 2" thick in one application.

SURFACE PREPARATION

Concrete surfaces must be sound, clean and dry. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

PRIMING

In order to achieve exceptional bond strength, prime the area to be repaired with Umaco Bond All Exterior. Apply by brush, working the material into all cracks and crevices but do not allow to puddle. Proper application should produce a thin continuous film. Allow

Umaco Bond All Exterior to dry sufficiently to become slightly tacky before applying Universal 1023. Umaco Bond All Exterior can be allowed to dry completely since it is re-emulsifiable; however, the mixed material should be applied within seven days as long as the Bond All Exterior remains clean, dust free and intact.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Apply a tight coat with a stainless steel trowel working the material into all cracks, crevices and edges eliminating all air pockets. Patches over 2" need to be built up in successive layers. Each layer should be scratched and kept rough to ensure a good mechanical bond. Allow previous layer to tighten at least 20 minutes before applying another layer. If more than one hour has elapsed between coats, prime the surface with Umaco Bond All Exterior. Finish the final surface with a trowel or sponge float.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out.

Umaco Color-Seal

Universal 1023 can be top-coated after 24 hours (at 70°F) with Umaco Color-Seal. See page 20.

Umaco Paver-Saver Plus

Universal 1023 can be stained after 24 hours (at 70°F) with Umaco Paver-Saver Plus. See page 20.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Average Depth</u>	<u>Coverage</u>
1/4"25 ft ²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application.
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- All control and expansion joints must be carried through
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Finish-Coat over Concrete & Masonry



UNIVERSAL 1023 produces a durable, polymer-modified, high-strength and water-resistant decorative finish when applied directly over vertical concrete and masonry surfaces.

SURFACE PREPARATION

Concrete surfaces must be sound, clean and dry. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

PRIMING

In order to achieve exceptional bond strength and provide an easier working surface, prime the surface with Umaco Bond All Exterior prior to the placement of the Universal 1023. Read Bond All Exterior data sheet for full instructions.

Concrete Block and Brick

Differential suction between concrete masonry units (blocks or bricks) and the mortar joints may cause “ghosting” or “photographing” of the joint patterns after periods of rain. To ensure even absorption of Universal 1023, apply a coat of Umaco Transeal WB using a roller or brush then allow to dry for at least 24 hours before applying Universal 1023. When using Transeal WB, do not first apply Bond All Exterior.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2” drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Apply a thin coat with a stainless steel trowel over the entire area within the control joints or within the area being worked, firmly pressing the material into all voids and pores. Immediately double back and apply a second coat to produce a level surface (with no trowel marks) at a minimum of 1/8” to a maximum of 1/2”. Finish the entire panel or work area in one application with no overlaps or cold joints. After the material firms, additional coats may be applied to obtain the desired thickness. If more than one hour has elapsed between coats, prime the surface with Umaco Bond All Exterior. When material sets, float or finish to obtain desired texture.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out.

Umaco Color-Seal

Universal 1023 can be top-coated after 24 hours (at 70°F) with Umaco Color-Seal. See page 20.

Umaco Paver-Saver Plus

Universal 1023 can be stained after 24 hours (at 70°F) with Umaco Paver-Saver Plus. See page 20.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Average Depth</u>	<u>Coverage</u>
1/4”.....	25 ft ²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application.
- Do not apply if rain, snow or any precipitation is expected within 24 hr
- All control and expansion joints must be carried through
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Finish-Coat over Cement-Board



UNIVERSAL 1023 produces a durable, polymer-modified, high-strength and water-resistant decorative finish when applied directly over vertical cement-board.

SURFACE PREPARATION

Properly fasten the cement board following the manufacturer's instructions or as per the specifications of the chosen installation system. Cement-board must be sound, clean and dry. Remove all dirt, dust or any other foreign material which might effect the bond. Prime the entire area with Umaco Bond All Exterior. Then using alkaline resistant tape, cover all joints. Completely embed the alkaline resistant tape using Universal 1023. Allow to cure at least 12 hours (at 70°F) before applying finish coat.

PRIMING

In order to achieve exceptional bond strength, cement-board must be primed with Umaco Bond All Exterior. Apply by brush or roller. Proper application should produce a thin continuous film. Allow Umaco Bond All Exterior to dry sufficiently to become slightly tacky before applying finish coat of Universal 1023. Umaco Bond All Exterior can be allowed to dry completely since it is re-emulsifiable; however, the water sensitivity does decrease with time and the mixed Universal 1023 should be

applied within seven days as long as the Umaco Bond All Exterior remains clean, dust free and intact.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Apply a thin coat with a stainless steel trowel over the entire area within the control joints or within the area being worked, firmly pressing the material into all voids and pores. Immediately double back and apply a second coat to produce a level surface (with no trowel marks) at a minimum of 1/8" to a maximum of 1/2". Finish the entire panel or work area in one application with no overlaps or cold joints. After the material firms, additional coats may be applied to obtain the desired thickness. If more than one hour has elapsed between coats, prime the surface with Umaco Bond All Exterior. When material sets and will not lift, float or finish to obtain the desired texture.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out.

Umaco Color-Seal

Universal 1023 can be top-coated after 24 hours (at 70°F) with Umaco Color-Seal. See page 20.

Umaco Paver-Saver-Plus

Universal 1023 can be stained after 24 hours (at 70°F) with Umaco Paver-Saver Plus. See page 20.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Average Depth</u>	<u>Coverage</u>
1/4".....	25 ft ²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application.
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- All control and expansion joints must be carried through
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Finish-Coat over Dry Stacked Block



UNIVERSAL 1023 produces a durable, polymer-modified, high-strength and water-resistant decorative finish when applied over dry-stacked concrete masonry units.

SURFACE PREPARATION

Lay the first course of concrete block conventionally so that the wall will start level and plumb. Cut the joints flush and allow them to set for 12 hours (at 70°F). Dry-stack clean, new block in a running bond pattern for maximum strength unless otherwise specified. Remove any burrs or irregularities being careful to keep the stacked blocks level and plumb. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

PRIMING

In order to achieve exceptional bond strength and provide an easier working surfaces, prime the surface with Umaco Bond All Exterior. Apply by brush or roller. Proper application should produce a thin continuous film. Allow Umaco Bond All Exterior to dry sufficiently to become slightly tacky before applying finish coat of Universal 1023. Umaco Bond All Exterior can be allowed to dry completely since it is re-emulsifiable; however, the water sensitivity does decrease with time and the mixed Universal 1023 should be applied within seven days as long as the Umaco Bond All Exterior remains clean, dust free and intact.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes. **For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.**

APPLICATION

Using a stainless steel trowel, apply a thin coat of the mixed material (over both sides of the wall) firmly pressing the material into all voids and pores. Immediately double back and apply a second coat to produce a level surface at a minimum thickness of 1/4" up to a maximum thickness of 1/2". When material sets and will not lift, float or finish to obtain the desired texture.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out.

Umaco Color-Seal

Universal 1023 can be top-coated after 24 hours (at 70°F) with Umaco Color-Seal. See page 20.

Umaco Paver-Saver Plus

Universal 1023 can be stained after 24 hours (at 70°F) with Umaco Paver-Saver-Plus. See page 20.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Average Depth</u>	<u>Coverage</u>
1/4"	25 ft ²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

For technical assistance call 978-453-8881

www.umaco.com



UNIVERSAL 1023

Finish-Coat over Rigid Insulation Board



UNIVERSAL 1023 produces a durable, polymer-modified, high-strength and water-resistant decorative finish when applied directly over rigid insulation board.

SURFACE PREPARATION

Properly install the rigid insulation board as per the instructions provided by the rigid insulation board's manufacture or as per the specifications of the chosen installation system. Rigid insulation board must be sound, clean and dry. Roughen the surface of the rigid insulation board with a wire brush. Remove all dirt, dust or any other foreign material which might effect the bond. Prime the entire area with Umaco Bond All Exterior. Then using alkaline resistant fiberglass mesh, cover all joints. Completely embed the alkaline resistant fiberglass mesh using Universal 1023. Allow to cure at least 12 hours (at 70°F) before applying finish coat.

PRIMING

In order to achieve exceptional bond strength, the rigid insulation board must be primed with Umaco Bond All Exterior. Apply by brush or roller. Proper application should produce a thin continuous film. Allow Umaco Bond All Exterior to dry sufficiently to become slightly tacky before applying Universal 1023. Umaco Bond All Exterior can be allowed to dry completely since it is

re-emulsifiable; however, the water sensitivity does decrease with time and the mixed Universal 1023 should be applied within seven days as long as the Umaco Bond All Exterior remains clean, dust free and intact.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Using a stainless steel trowel, apply a thin coat of Universal 1023 over the properly prepared rigid insulation board then immediately double back applying the Universal 1023 to the desired thickness. Apply Universal 1023 with a minimum thickness of 1/8" up to a maximum thickness of 3/8". When material sets and will not lift, float or finish to obtain the desired texture.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out.

Umaco Color-Seal

Universal 1023 can be top-coated after 24 hours (at 70°F) with Umaco Color-Seal. See page 20.

Umaco Paver-Saver Plus

Universal 1023 can be stained after 24 hours (at 70°F) with Umaco Paver-Saver Plus. See page 20.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Average Depth</u>	<u>Coverage</u>
1/4".....	25 ft ²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

For technical assistance call
978-453-8881

www.umaco.com



UNIVERSAL 1023

Basecoat over Galvanized Metal-Lath



UNIVERSAL 1023 produces a durable, polymer-modified, high-strength and water-resistant basecoat for stucco, thin-brick, thin-stone and manufactured stone veneer systems when applied over 3.4 galvanized metal-lath.

SURFACE PREPARATION

Securely fasten the galvanized metal-lath as per the manufacturer's instructions or as per the specifications of the chosen installation system. Follow all local building codes. For typical 16 inch on center framing, use only 3.4 galvanized metal lath. **Exterior-Grade Plywood Sheathing** All plywood sheathing (and studs) should be the proper grade and moisture content (typically below 20%) for construction in order to prevent unnecessary cracking. A 1/8" space should be provided between the edges of adjacent sheathing panels to allow for expansion.

CONTROL JOINTS

The location of control joints and other accessories should be determined by the designer or architect. Placement of control joints should be selected to correspond with lines of anticipated potential building movement such as at the corners of openings in the finish which includes vents, windows and doors. Panels should contain 144 ft² or less of surface area with no dimension greater than 18 feet in either direction or

a length ratio of 2-1/2 to 1. This will reduce the chance of shrinkage cracks and will allow the entire panel to be finished continuously with no overlaps or cold joints. Any existing control and expansion joints must be carried through the finish. Control joints are also required when two dissimilar substrates come together.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Apply a thin coat of Universal 1023 with a stainless steel trowel over the entire area within the control joints or within the area being worked, firmly pressing the material while **completely encasing** the metal-lath. Immediately double back and apply a second coat to produce a smooth and level surface (with no trowel marks) at a minimum of 1/8" to a maximum of 1/2". Finish the entire panel or work area in one application with no overlaps or cold joints. After the material firms, additional coats may be applied to obtain the desired thickness. If more than one hour has elapsed between coats, prime the surface with Bond All Exterior.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets

to prevent a quick dry out. Allow Universal 1023 to cure a minimum of 24 hours (at 70°F) before applying stucco, thin-brick, manufactured stone or thin-stone veneers.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Average Depth</u>	<u>Coverage</u>
1/4".....	15-20 ft ²

PRECAUTIONS

- For typical 16 inch on center framing, use only 3.4 galvanized metal lath
- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Basecoat for Stucco Finishes over EPS Board



UNIVERSAL 1023 produces a durable, polymer-modified, high strength and water-resistant basecoat for stucco finishes when applied over EPS board. Applied by trowel, Universal 1023 embeds fiberglass reinforced mesh fabric over expanded polystyrene insulation board (EPS board). Universal 1023 may also be used to adhere EPS board to properly prepared masonry, concrete and exterior grade plywood.

SURFACE PREPARATION

For Adhesive Applications

Substrates to which EPS boards will be adhered must be dry, sound and clean. Remove all dirt, dust, efflorescence, laitance or any other foreign material which might effect the bond. Masonry and concrete substrates must be flat within 1/4" in ten feet. Dampen concrete walls just prior to boards being placed. Do not allow the wall to dry out.

Universal 1023 may be used to adhere EPS board to concrete, masonry and exterior grade plywood, however if there is any doubt that a good bond can be achieved, mechanical fasteners must be used to attach EPS boards.

Basecoat Over EPS Board

EPS boards must be properly adhered/ attached to the substrate. See "Adhering EPS Board" under APPLICATION. If fasteners are required, follow manufacturer's instructions regarding proper

installation. Recess heads of fasteners 1/8" then cover with Universal 1023.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Adhering EPS Board

Scratch both sides of EPS board with rasp, wire brush or saw blade. Apply Universal 1023 to the back of EPS board in mounds of at least 1/4" thick and 2" in diameter, making sure that the material covers a minimum of 50% of the board. An alternative method is to cover the entire back side of the board using a 3/8" notched trowel. After Universal 1023 has been applied to back side, place EPS board on wall and push firmly. Using a block of wood, apply equal and even pressure to allow maximum bond to be achieved. Apply EPS boards horizontally across entire wall in a running bond, staggering vertical joints, corners and sheathings. All gaps greater than 1/8" between EPS boards must be filled with slivers of EPS board. Rasp the entire wall to a flat surface within 1/4" in ten feet. Rout or groove all aesthetic joints and EPS board details after rasping. After adhering EPS board to the wall, wait 24 hours (at 70°F) before applying basecoat.

Basecoat

When applying Universal 1023 over EPS board as a basecoat, fiberglass reinforced mesh fabric must also be

used to cover the entire area. Cut the mesh fabric into pieces that are manageable. For lightweight to medium weight fabrics, allow for a 2" overlap. Heavy mesh fabrics do not need to be overlapped, however care must be taken to butt the edges firmly together. Apply a minimum of a 1/16" coat of Universal 1023 to the EPS then trowel in the fabric mesh using a stainless steel trowel. An alternative method would be to sandwich the mesh between two 1/32" coats of Universal 1023. Avoid trowel marks and ridges. Be certain that no wrinkles or mesh fabric are visible through the Universal 1023. If mesh pattern is visible, skim the area with a light coat of Universal 1023. Wait 24 hours (at 70°F) before applying stucco finishes.

COVERAGE

As an Adhesive

50-70 ft² per 50# Universal 1023

As a Basecoat for Embedding Mesh

100-120 ft² per 50# Universal 1023

LIMITATIONS

- Apply only when ambient and surface temperatures are above 45°F and will remain so for at least 48 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 48 hours
- Do not apply over frozen surfaces
- Do not apply over 1/4" thick
- After Universal 1023 has been applied, wait a minimum of 24 hours before applying stucco finishes
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Brush Applied, Water-Resistant Coating



UNIVERSAL 1023 may be applied as a cementitious, water-resistant coating over a variety of properly prepared, vertical masonry and concrete surfaces. Universal 1023 creates a permanent water-resistant barrier which prevents moisture migration.

SURFACE PREPARATION

Concrete and masonry surfaces must be sound, clean and dry. When mixed to a brushable consistency, Universal 1023 will not fill large voids or bridge large cracks. All deteriorated mortar joints, large voids and cracks must be repointed or patched using Universal 1023 which has been mixed with approximately 4-1/2 quarts of water. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

New Concrete Foundations

Before applying Universal 1023 on a new concrete foundation, all rod ties must be broken off close to the foundation, pushed back one to two inches and then filled with Umaco U-Plug. Honeycomb voids and holes left in the foundation for pipes must also be filled with U-Plug to ensure proper waterproof protection.

PRIMING

In order to achieve exceptional bond strength and provide an easier working surface, prime the surface with Umaco Bond All Exterior prior to the placement of the Universal 1023.

MIXING

Mix each 50# bag of Universal 1023 with approximately 6 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free, pancake batter consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650rpm) with a jiffy mixer. Only mix enough material that can be brushed on within 30-40 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Universal 1023 may be applied by a bristled masonry brush (for a finer texture a nylon paint brush) or by hopper spray gun equipment. Apply liberally filling all voids and pores in the substrate. When applied on concrete masonry units, a horizontal finished brush stroke is recommended to avoid brush marks. When applied on poured concrete, a vertical finished brush stroke will provide a neat finish. Two coats are required for proper water-resistant protection. Apply 2nd coat after the 1st coat has dried to the touch.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water or cover with burlap until material sets to prevent a quick dry out.

Umaco Color-Seal

Universal 1023 can be top-coated after 24 hours (at 70°F) with Umaco Color-Seal. See page 20.

Umaco Paver-Saver Plus

Universal 1023 can be stained after 24 hours (at 70°F) with Umaco Paver-Saver Plus. See page 20.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Material</u>	<u>Coverage</u>
Concrete.....	200-300 ft ² (per coat)
Brick or Block.....	200-250 ft ² (per coat)

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Fast Setting Adhesive for Thin-Stone



UNIVERSAL 1023 may be used as a fast-setting, durable, polymer-modified and water-resistant adhesive when installing thin-stone veneers. An ideal product to use for smaller installations that require a quick set time.

SURFACE PREPARATION

Surface preparation should be made in accordance with the instructions and requirements provided by the specific thin-stone veneer manufacturer. Surfaces must be structurally sound, stable and rigid enough to support thin-stone veneers. For exterior vertical installations over framed construction, the substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed $L/600$ where L = span length (except where local building codes specify more stringent deflection requirements).

Masonry and Concrete Surfaces

Masonry and concrete substrates must be structurally sound and clean. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is

recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

PRIMING

In order to achieve exceptional bond strength and provide an easier surface to work, prime the surface with Umaco Bond All Exterior prior to the placement of the Universal 1023.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Proper consistency is such that the notched trowel ridges will not slump or flow when applied to the substrate. Only mix enough material that can be placed within 10-20 minutes.

For a slower set time, add one pack of Universal Retarder 1023 (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Installations should be made in accordance with the instructions and requirements provided by the specific thin-stone veneer manufacturer as well as per the local building codes. Prior to installation, ensure that the back of each stone is clean and free of dust, laitance, loose concrete or any excess film which may impede the bond. Lightly dampen the wall surface and the backs of each stone prior to application to prevent excessive absorption of moisture from the mortar. Allow the surface to dry for a few minutes to eliminate excess water.

Adhered Method

Using a mason's trowel, apply a 1/2" thick even layer of Universal 1023 to the entire back of each stone. Press the stone firmly in place on the prepared wall surface, squeezing the mortar out around the edges. Using a gentle wiggling movement while pressing the stone will ensure a good bond. Use a trowel to remove any excess mortar then fill any voids along the stone's exposed edges. This seals the edges and also allows tighter fitting of the following applied stones.

GROUTING

Using a grout bag, fill the joints and voids with Universal 1023 being careful not to smear any grout onto the face of the stone. When mortar reaches a firm consistency, use a metal striking tool to rake the joints out to the desired depth while at the same time forcing the mortar into the joints so as to thoroughly seal the edges. After working the joints, use a whisk broom to smooth the joints and clean any loose mortar.

COVERAGE

Approximate coverage per each 50 lb. Adhered Method.....12-15 ft²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Review Safety Data Sheet before using this product.

For technical assistance call 978-453-8881



UNIVERSAL 1023

Bedding Mortar for Treads & Coping



UNIVERSAL 1023 may be used as a durable, polymer-modified, high-strength and water-resistant bedding mortar when installing a variety of stone treads, coping and slate.

SURFACE PREPARATION

Concrete surfaces must be sound, clean and dry. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond.

SEE PAINT REMOVAL WARNING ON PAGE 19. Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

PRIMING

The concrete or masonry substrate and the material being adhered must be sound, clean and dry. Prime the substrate and the backside of the material being adhered with Umaco Bond All Exterior. Apply by brush or roller. Proper application should

produce a thin continuous film. Allow Umaco Bond All Exterior to dry sufficiently to become slightly tacky before applying Universal 1023. Umaco Bond All Exterior can be allowed to dry completely since it is re-emulsifiable; however, the water sensitivity does decrease with time and the mixed Universal 1023 should be applied within seven days as long as the Umaco Bond All Exterior remains clean, dust free and intact.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes. **For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.**

APPLICATION

For a 2" stone tread, apply a 1" bed of Universal 1023 over the entire surface of the concrete or masonry substrate. Keep in mind that every square inch of the tread (backside) should be in contact with the 1" bed of Universal 1023. If material skins over (not sticky), prior to placing the tread, remove and replace with fresh material. Lay the tread on the 1" bed of mortar pressing firmly in place. Using a gentle wiggling movement while pressing the tread will ensure a good bond. Level as need with the assistance of a rubber mallet. Clean any excess Universal 1023 that may ooze out of the joints. Allow to set until firm. Once firm, grout the joints with Universal 1023 .

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

<u>Average Depth</u>	<u>Coverage</u>
1/2".....	14 ft ²
1".....	7 ft ²

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Review Safety Data Sheet before using this product

For technical assistance call 978-453-8881

www.umaco.com



UNIVERSAL 1023

Fast-Setting Thinset for Tile & Thin-Brick



UNIVERSAL 1023 may be used as a fast-setting, polymer-modified and water-resistant thinset for a variety of tile and thin-brick applications. An ideal product to use for smaller installations that require a quick set time.

SURFACE PREPARATION

Concrete surfaces must be sound, clean and dry. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding. Surfaces must be structurally sound, stable and rigid enough to support ceramic/stone tile, thin-brick and similar finishes. Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed industry standards of L/360 for thin bed ceramic tile/brick installations and L/480 for thin bed stone installations where L=span length.

All slabs must be plumb and true to within 1/4" in 10 feet.

Perform a spot test prior to application to ensure compatibility between Universal 1023, the tile and the substrate as well as to confirm that performance is acceptable.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

TROWEL CHOICE

Slate

1/4" wide x 1/4" deep x 1/4" apart

Quarry, pavers, large ceramic tile

1/4" wide x 3/8" deep x 1/4" apart

Ceramic tile 3" (or smaller), thin-brick

3/16" deep V-notched trowel

APPLICATION

Apply a thin, pressured-on skim coat to the substrate with the flat edge of the trowel. Using the appropriate notched trowel for the tile being installed, apply a second coat combing the Universal 1023 into ridges to obtain an even setting bed. Trowel an area no greater than 10 square feet at a time. Apply dry tiles with a twisting motion, making sure that 25% of the thickness of the tile is embedded in the Universal 1023. Make all adjustments immediately after the beat in procedure. Clean all joints and wipe smudges from the tile face with a damp sponge or rag. All tile must be set in accordance with industry practice and the recommended minimum

requirements for materials and workmanship as set forth by ANSI A108.5 specifications and the "Handbook for Ceramic Tile Installation" published by the Tile Council of America.

EXPANSION JOINTS

Expansion joints must be provided through the tile work from all construction or expansion joints in the substrate. Follow ANSI Specifications AN-3.8 "Requirements for Expansion Joints". Do not cover expansion joints with Universal 1023.

COVERAGE PER 50 LB BAG

- Approximately 70-80 ft² using a 1/4" x 1/4" notched trowel
- Approximately 50-60 ft² using a 1/4" x 3/8" notched trowel

GROUTING

All traffic should be kept off floors prior to grouting. Grout only after the Universal 1023 has cured for at least 24 hours at 70°F making sure that the tile has firmly set. Unglazed tile may require sealing prior to grouting in order that discolorations do not occur.

PRECAUTIONS

- Only apply when ambient & surface temperatures are above 45°F and will remain so for at least 24 hours
- Keep all traffic off prior to grouting
- Clean mixing tools and equipment during and immediately after use
- Do not use below grade where hydrostatic pressure and excessive moisture conditions exist
- Review Safety Data Sheet before using this product

For technical assistance call 978-453-8881

www.umaco.com



UNIVERSAL 1023

Glass Block Mortar



UNIVERSAL 1023 provides a durable, polymer-modified, high-strength and water-resistant mortar which may be used for setting a variety of decorative glass block. Available in Gray and White.

It is important to follow glass block manufacturer's instructions regarding proper application and substrate compatibility.

SURFACE PREPARATION

All materials to be laid or surfaces on which glass block are to be laid must be sound, clean and dry. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

PRIMING

In order to achieve exceptional bond strength, prime the surface onto which the glass block are to be laid with Umaco Bond All Exterior. Apply by brush or roller. Proper application should produce a thin continuous film. Allow Umaco Bond All Exterior to dry sufficiently to become slightly tacky before applying Universal 1023. Umaco Bond All Exterior can be allowed to dry completely since it is re-emulsifiable; however, the water sensitivity does decrease with time and the mixed Universal 1023 should be applied within seven days as long as the Umaco Bond All Exterior remains clean, dust free and intact.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes. **For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.**

APPLICATION

Set glass block in a full bed of Universal 1023 as per the glass block manufacturer's recommendations. Joints may be tooled after initial set. Glass blocks may then be washed using a sponge and clean water to remove any excess mortar and film.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out.

COVERAGE

Approximate coverage per each 50 pound bag of Universal 1023:

Glass Block Size	Pieces
6"x6" glass block.....	36
8"x 8" glass block.....	32
12"x12" glass block.....	18

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- It is important to follow glass block manufacturer's instructions for proper application and substrate compatibility
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

For technical assistance call 978-453-8881

www.umaco.com



UNIVERSAL 1023

Pointing Mortar for Brick & Stone Veneers



UNIVERSAL 1023 provides a durable, polymer-modified, high-strength and water-resistant mortar which may be used to grout and repoint all types of masonry and stone veneers.

- Easy to use, just add water
- Polymer-modified
- High bond strength
- Provides water resistant finish
- Horizontal or vertical joints
- Self curing under normal conditions
- Available in Gray or White
- Can be blended with most mortar colors to match or achieve a particular color

SURFACE PREPARATION

Mortar joints to be repointed must be free of any loose mortar and cut back to a sound surface. Flush all joints with clean water or compressed air. Dampen surface with clean water to the point of saturation but do not allow standing water prior to placing material.

PRIMING

Dampen the properly prepared mortar joints with clean water to the point of saturation but do not allow standing water prior to placing material.

Universal 1023 can be blended with most mortar/cement colors when trying to match/achieve a particular color. Always follow the instructions from the specific mortar/cement color's manufacturer regarding correct dosage rates and proper use when adding their pigmented color to the mix.

MIXING

Mix each 50# bag of Universal 1023 with approximately 4-1/2 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be placed within 15-20 minutes.

For a slower set time, add one pack of Universal Retarder 1023 (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.

APPLICATION

Using a grout bag, fill the joints and all voids being careful not to smear any grout onto the face of the brick or stone. When mortar reaches a firm consistency, use a metal striking tool to rake the joints out to the desired depth while at the same time forcing the mortar into the joints so as to thoroughly seal the edges. After working the joints, use a whisk broom to smooth the joints and clean any loose mortar.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets to prevent a quick dry out.

COVERAGE

One 50 lb. bag of Universal 1023 will yield approximately .45 cubic feet.

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Universal 1023 can be blended with most mortar & cement colors as long as the instructions from the color manufacturer (regarding dosage rates & proper use) are followed
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Decorative Spray Deck over Concrete



UNIVERSAL 1023 creates a cost effective, colorful and textured surface which may be spray applied over unattractive or dull concrete without the cost of full removal. Ideal product to use for restoring pool decks, driveways, patios, walkways, entryways and more. **Contact a Umaco representative for full instructions.**

SURFACE PREPARATION

Concrete surfaces must be sound, clean, dry and have a rough profile. Remove all dirt, dust, spalling or loose concrete, oil, grease, wax, mildew, efflorescence, laitance, curing compounds, form release agents, rust, paint or any other foreign material which might effect the bond. **SEE PAINT REMOVAL WARNING ON PAGE 19.** Umaco Ultra-Clean may be used to remove oil or grease stains from concrete surfaces and may also be used as an all purpose cleaner prior to application. A rough profile is recommended for proper adhesion which may be obtained by lightly etching the concrete using Umaco Ultra-Etch. Mechanical means such as dustless grinding may also be used. Ultimately, a porous surface is required for proper bonding.

Existing Concrete

Verify that the existing concrete surface is flat, free of defects or planar irregularities. All voids, cracks and damaged areas must be repaired.

Uneven or pitted concrete must be struck flush with Universal 1023 to produce a smooth level surface. All control and expansion joints must be carried through.

BASECOAT

Mixing

Mix a 50# bag of Universal 1023 with approximately 8 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free, paint-like consistency. For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be applied within 30-40 minutes.

Application

Using a 3/8" nap roller, apply a thin, continuous and even coat over the entire area. Smooth out any roller marks using a steel trowel. Allow to dry completely before applying spray coat. Once the surface is dry, lightly scrape the surface to remove any loose material or ridges using a flexible scraper then vacuum entire area.

SPRAY COAT

Mixing

Mix each 50# bag of Universal 1023 with approximately 4-1/2 to 5 quarts of clean potable water. Add dry material (gradually) to water mixing completely for 1-2 minutes to form a creamy, lump free consistency. While mixing, add one pack of Universal 1023 Retarder (approximately one teaspoon). For best results, mechanical mixing is preferred using a 1/2" drill (500-650 rpm) with a jiffy mixer. Only mix enough material that can be applied within 15 minutes.

Application

After mixing, immediately fill the hopper and begin spraying in a circular motion, covering approximately 75 percent of concrete surface. The material may then be knocked down (using a trowel) just as soon as it begins to stiffen.

Once the surface is dry, lightly scrape the surface to remove any loose material or ridges using a flexible light scraper then vacuum entire area. Allow spray coat to dry 24 hours (at 70°F) before applying topcoat.

CURING

When working in direct sunlight, high temperatures, extremely windy conditions or over very porous surfaces, lightly mist with water until material sets.

TOPCOAT

Apply two coats of Umaco Color-Seal using a 3/8" nap synthetic roller cover. Thin the first coat with 2 quarts of water per gallon. Thoroughly saturate substrate with the first coat. Once first coat has dried, apply a second coat (un-thinned). Apply both coats evenly avoiding runs, sags or puddles. Do not over-brush or over-roll since this may cause air bubbles to form. Always work to a wet edge. Overlapping wet on dry will cause finish variations. Umaco Color-Seal is available in a wide variety of colors. See page 20.

COVERAGE

Basecoat.....200-300 ft²/50# bag
Spray Coat.....75-100 ft²/50# bag

PRECAUTIONS

- Apply only when the ambient and surface temperatures are above 45°F and will remain so for at least 12 hours after application.
- Do not apply if rain, snow or any other precipitation is expected within 24 hours
- Review Safety Data Sheet before using this product

**For technical assistance call
978-453-8881**

www.umaco.com



UNIVERSAL 1023

Technical Data & Warranty

TECHNICAL DATA

Set Time

Initial.....30 minutes
Final.....2 hours

Compressive Strength (ASTM C-109)

28 Days.....5251 psi

Flexural Strength (ASTM C-348)

28 Days.....1171 psi

Tensile Strength (ASTM C-190)

28 Days.....545 psi

Density

Wet.....128 pcf

Water Penetration

3 Day Soak.....1/2 inch

Testing Sample: 4.5 quarts of water mixed with 50 lbs. of Universal 1023

WARNING!

Avoid breathing dust. This product contains Portland cement and silica which may cause cancer or delayed lung injury (silicosis). Avoid eye contact or prolonged contact with skin. In case of eye contact, flush with plenty of water for at least fifteen minutes. If irritation persists, seek immediate medical attention. Wash hands and skin thoroughly with water after handling. If irritation persists, seek immediate medical attention. Do not take internally. If ingested, seek immediate medical attention. NIOSH approved dust respirator, eye protection and gloves are recommended when using this product.

24 Hour Emergency Medical/Spill Information (Chemtrec): 800-424-9300

KEEP OUT OF THE REACH OF CHILDREN!

WARNING! If you scrape, sand or remove old paint, you may release lead dust or fumes. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.**

Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log onto www.epa.gov/lead. Wear a properly fitted respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

For technical assistance call 978-453-8881

www.umaco.com

LIMITED WARRANTY

The manufacturer guarantees its products to be free of defects and the extent of its liability is limited to the purchase price of the materials only, if proved to be defective. Improper mixing, incorrect application or other factors beyond the control of the manufacturer or its dealers may produce unsatisfactory results and cannot be held to be the manufacturers or its dealers responsibility. There are no other guarantees either expressed or implied.



PAVER-SAVER PLUS

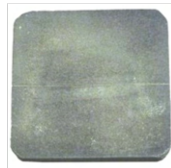


A semi-transparent, decorative, water-based, colored concrete stain & repellent (water, oil & stains) which provides an attractive yet natural looking finish when applied over concrete surfaces. Paver-Saver Plus is a user friendly alternative to hazardous solvent & acid-based stains. An excellent stain to use over Umaco Universal 1023.

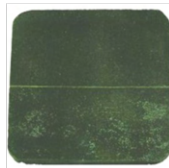
** Colors presented on the color chart below are just a representation of the actual color. For an exact color, request to see color swatch.*



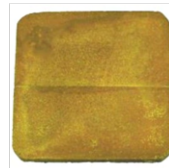
Antique Gray



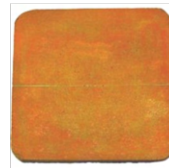
Gray



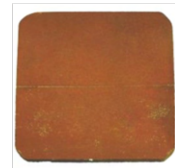
Olive Green



Sandstone



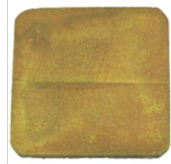
Pottery



Terra Cotta



Mars Red



Light Adobe



Dark Adobe



Dark Brown

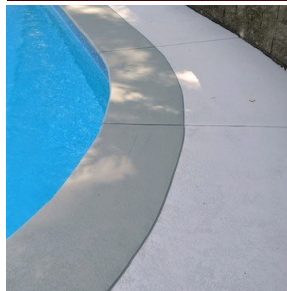


Dark Chocolate



Desert Sand

COLOR-SEAL



A water-based, water-resistant, acrylic sealer designed to be applied over concrete, brick, block, stucco & concrete pavers. Color-Seal provides excellent adhesion, hot tire resistance and provides long lasting protection. An excellent topcoat to use over Umaco Universal 1023.

** Colors presented on the color chart below are just a representation of the actual color. For an exact color, request to see color swatch.*



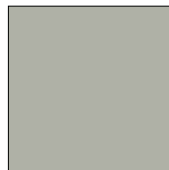
Battleship Gray



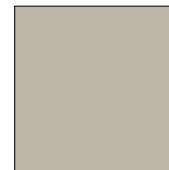
Charcoal



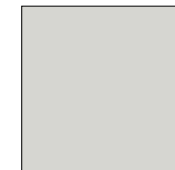
#3 Gray



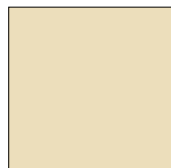
Stone Gray



Cement Gray



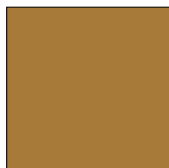
Dolphin Gray



Cream



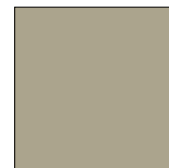
Sandy Beige



Buff Gold



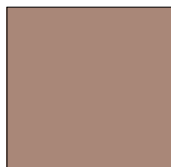
Hazetone



Indian Sand



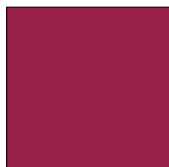
Terra Cotta



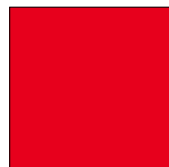
Cobble



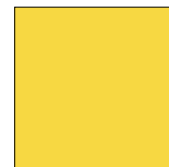
Chocolate



Autumn Red



Safety Red



Safety Yellow



Leaf Green



TRY THESE OTHER QUALITY UMACO PRODUCTS



BOND ALL EXTERIOR

An exterior-grade, water-based, surface bonding agent applied prior to placing new plaster & Portland cement based mixes over masonry, concrete, stone, plaster, drywall, wonder-board, precast concrete, wood, tile & EPS board. May be applied over vertical & horizontal surfaces for interior as well as exterior applications. Also available in an interior grade; Bond All Interior.



ADDMIX-21

A specially formulated combination of polymers & modifiers designed to enhance the properties of cement based mixes. When added to cement-based mixes, Addmix-21 increases flexural, compressive & tensile strengths as well as the adhesive bond. Also available in a more concentrated formula; Addmix-35.



UNIVERSAL 1023 RETARDER

A special additive specifically designed to be used as a retarder when a slower set time is desired while using Universal 1023. For a slower set time, add one pack of Universal 1023 Retarder (approximately one teaspoon) to each 50# bag of Universal 1023 while mixing.



ULTRA-CLEAN

An environmentally safe, 100% biodegradable solution used to clean concrete, concrete pavers & retaining wall block. Ultra-Clean safely & effectively removes dirt, oil, grease & grime. Helps clean & prepare concrete surfaces prior to the application of protective sealants & coatings. Ideal to use as a general cleaner for routine maintenance of floors & other hard surfaces.



ULTRA-ETCH

An environmentally safe, organic, 100% biodegradable, non-fuming solution used to lightly etch concrete surfaces. Ultra-Etch can be used in place of harmful acids such as Hydrochloric, Sulfuric & Muriatic acid. Ultra-Etch provides excellent results with none of the hazards associated with traditional acids.



TRY THESE OTHER QUALITY UMACO PRODUCTS



TRANSEAL

An exterior-grade (solvent-based), clear, high-gloss, acrylic sealer designed to be applied over concrete pavers, brick, block, concrete, stucco & natural stone. Forms a durable, flexible film which provides long lasting protection while enhancing the natural beauty & color of the surface it is applied to. May be used for vertical & horizontal applications.



TRANSEAL WB

An interior/exterior grade (water-based), clear, semi-gloss, low-odor, acrylic sealer designed to be applied over properly prepared concrete pavers, brick, block, concrete & natural stone. Forms a durable, flexible film which provides long lasting protection while enhancing the natural beauty & color of the surface it is applied to. May be used for vertical & horizontal applications.



SILOXANE 20

An exterior-grade (solvent-based), clear, deep-penetrating water repellent designed to be applied over untreated concrete pavers, brick, concrete & natural stone. Siloxane 20 is breathable and protects without forming a film or leaving a sheen. Will not darken most substrates (spot test required to determine). May be used for vertical & horizontal applications.



PAVER-SAVER

Advanced nano-technology formulation. Paver-Saver is a clear (minimal change in appearance), deep-penetrating material which repels water, oil & stains. Paver-Saver chemically bonds to mineral substrates such as concrete pavers, concrete slabs & natural stone protecting them from the damaging effects of water, oils, staining, ice-melting products & freeze/thaw cycles.



PAVER-SAVER PLUS (COLORS)

Advanced nano-technology formulation. A premium, semi-transparent, decorative, concrete stain & repellent (water, oil & stains). May be applied over a variety of concrete surfaces including faded concrete pavers & retaining wall block.

Paver-Saver Plus rejuvenates old, worn & dull concrete.

A safe alternative to hazardous solvent & acid based stains.



TRY THESE OTHER QUALITY UMACO PRODUCTS



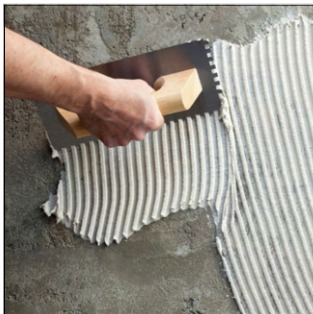
MANUFACTURED STONE MORTAR

Polymer-modified. Provides optimum bond & exceptional sag resistance when installing a variety of manufactured stone. Manufactured Stone Mortar is applied by buttering the back-side of each stone then adhering it directly to the properly prepared substrate. Easy to use, just mix with water. Provides long pot life allowing more.



THIN-STONE VENEER MORTAR

Polymer-modified. Provides optimum bond & exceptional sag resistance when installing a variety of thin-stone veneers. Thin-Stone Veneer Mortar is applied by buttering the back-side of each stone then adhering it directly to the properly prepared substrate. Easy to use, just mix with water. Provides long pot life allowing more working time.



XTREME-BOND STONE MORTAR

A high-performance, polymer-modified mortar which is applied over the substrate by notched-trowel. Provides optimum bond & exceptional sag resistance. The ideal product to use when installing thin-stone with backsides that are flat and even over relatively, flat, even & smooth substrates. Easy to use, just mix with water. Provides long pot life allowing more working time.



XTREME WEATHER-BLOCK

A 100% acrylic, elastomeric, waterproof membrane designed for use as a water-resistive barrier behind thin-stone veneer applications. Provides a water-resistive barrier coating when applied over concrete, CMU, brick, cement-board sheathing & CDX plywood.

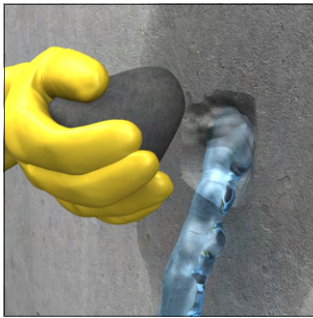


FLEX-COAT

A 100% acrylic based, aggregate textured stucco applied by trowel over a variety of properly prepared substrates including cement-board, concrete & masonry. Flex-Coat is ready to use right out of the pail, just give it a quick mix then apply. Consistent color and texture throughout. Flex-Coat is available in a variety of colors & textures (smooth, fine, coarse & swirl).



TRY THESE OTHER QUALITY UMACO PRODUCTS



U-PLUG

A fast-setting (3-5 minutes), hydraulic cement designed to instantly stop running water from seeping through holes & cracks in masonry and concrete. Exhibits excellent adhesion & exceptional structural strength while providing a long lasting permanent repair.



NON-SHRINK GROUT

A non-shrink, high-strength, non-metallic, cementitious grout formulated to maintain its strengths at both flowable & trowelable consistencies. Grouts machinery & structural supports which require non-shrink performance combined with high strength. Its non-bleeding & non-segregating characteristics at fluid consistencies make it an ideal anchoring cement.



FEATHER-EDGE

A fast-setting, polymer-modified, cement-based, patching compound which provides a smooth, true feather-edge finish when applied by trowel over a variety of interior substrates prior to the installation of floor coverings such as ceramic tile, VCT, sheet vinyl & carpeting.



SELF-LEVELER 4000

A single-component, cement-based, polymer-modified, self-leveling, floor resurfacer which can be poured or pumped over concrete, terrazzo, ceramic tile, and wood flooring. Self-Leveler 4000 may be applied from a feather-edge up to 2" in a single pour. Surfaces to which Self-Leveler 4000 will be applied must first be primed with Umaco Bond All Exterior

Umaco, Inc.
60 Rear Newhall Street
Lowell, MA 01852
Toll Free: 800-442-5535
Phone: 978-453-8881
www.umaco.com

Brochure 2021, Printed in the USA