Cast-in-Place Concrete	03 30 00
Precast Concrete	03 40 00
Mass Concrete	03 70 00
Earthwork	31.00.00



# MasterLife® 300L

# **Liquid Crystalline Capillary Waterproofing Admixture**

#### **Description**

MasterLife 300L is a liquid crystalline capillary waterproofing admixture for concrete. It is designed for use in above- and below-grade applications. MasterLife 300L admixture will meet ASTM C494/C494M requirements for Type S, Specific Performance, admixtures.

#### **Applications**

Recommended for use in:

- Foundations
- Sewage and water treatment plants
- Water tanks and reservoirs
- Swimming pools
- Underground vaults
- Tunnels and subway systems
- Secondary containment structures
- Below-grade parking structures
- Precast components
- Water features
- Geotechnical grouting and ground improvement
- Tinted concrete elements

#### **Features**

- Unique liquid crystalline formulation
- Automated dispenser / integral addition

#### **Benefits**

- Reduces concrete permeability
- Reduces penetration of water and other liquids
- Resists positive and negative side hydrostatic pressure
- Protects against sewage and industrial waste
- Seal hairline cracks
- Allows concrete to breathe
- Accurate dosing and addition verification with batch ticket printout
- Enhanced safety during batching
- No packaging waste or disposal cost

#### **Performance Characteristics**

**Slump and Setting Time:** The MasterLife 300L admixture has little to no effect on concrete slump or setting time at the recommended dosage.

**Hardened Properties:** Depending on the ingredients and proportions of a concrete mixture, a decrease in compressive strength may be experienced with MasterLife 300L admixture, typically in the range of 5 to 10 percent. Please consult your local sales representative for recommended concrete mixture adjustments prior to the use of MasterLife 300L admixture.

### Typical Data for MasterLife 300L Admixture @ 1.25 gal/yd³ [6.2 L/m³]

Performance characteristic	Test method	Performance relative to untreated concrete mixture
Water Permeability	CRD-C 48	74% reduction
Water Penetration	DIN 1048	33% reduction
Capillary Absorption	ASTM C 1585	40% reduction



#### **Guidelines for Use**

Concrete Quality: Crystalline capillary waterproofing admixtures such as the MasterLife 300 series of admixtures are categorized as Permeability-Reducing Admixtures (PRAs) in ACI 212.3R-16, Report on Chemical Admixtures for Concrete. These admixtures "are intended to be used in, and complement, well-proportioned concrete mixtures, not to compensate for poorly proportioned concrete mixtures. Although recommendations differ from each manufacturer, a w/cm of 0.45 or less is typical for concrete designed to resist water movement." In accordance with the recommendations provided in ACI 318, ACI 350 and ACI 212.3R, Master Builders Solutions recommends the use of the MasterLife 300 series of admixtures in good quality concrete with a maximum water-cementitious materials ratio of 0.45 and a minimum compressive strength of 4000 psi (28 MPa). The MasterLife 300 series of admixtures meet the requirements for PRAs for concrete exposed to hydrostatic conditions (PRAH), as defined in ACI 212.3R-16. Master Builders Solutions recommends adherence to the following guidelines provided in ACI 212.3R-16 when the MasterLife 300 series of admixtures are used: "If the PRAH forms part of a primary waterproofing system, consider crack control measures (control joints), the admixture's crack sealing abilities, treatment of construction joints, and compatible repair systems. Also consider using concrete with the lowest drying shrinkage possible."

**Dosage:** MasterLife 300L admixture is recommended for use at a dosage of 1.25 gal/yd³ (6.2 L/m³).

Dispensing and Mixing: Mixture Proportions: The mix water content should be reduced by I .25 gal/yd $^3$  [6.2 L/m $^3$ ] to account for the quantity of MasterLife 300L admixture used. MasterLife 300L admixture may be added to the concrete mixture during the initial batch sequence at the production plant or at the jobsite. If the delayed addition method is used, mixing at high speed for 3–5 minutes after the addition of MasterLife 300L admixture will result in mixture uniformity.

#### **Product Notes**

**Corrosivity – Non-Chloride, Non-Corrosive:** MasterLife 300L admixture will neither initiate nor promote corrosion of reinforcing steel, prestressing steel or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of MasterLife 300L admixture.

Compatibility: MasterLife 300L admixture is compatible with most admixtures used in the production of quality concrete, including normal, mid-range and high-range water-reducers, retarders, accelerators and corrosion inhibitors. For air-entrained concrete applications, MasterLife 300L admixture can be used with MasterAir® AE 200, MasterAir AE VR10 and MasterAir AE 90 air-entraining admixtures. The dosage of air-entraining admixture should be established through truck trial evaluations.

**Tinted Concrete:** MasterLife 300L admixture can be used in combination with a coloring admixture, such as MasterColor Medium Red liquid admixture, to produce tinted concrete.

#### **Packaging**

MasterLife 300L admixture is available in 265 gal (1003 L) totes and by bulk delivery.

#### Storage and Handling

**Storage Temperature:** MasterLife 300L admixture should be stored at ambient temperatures above 40 °F (5 °C), and precautions should be taken to protect the admixture from freezing. If MasterLife 300L admixture freezes, thaw and reconstitute by mild mechanical agitation. Do not use pressurized air for agitation.

#### **Shelf Life**

MasterLife 300L admixture has a minimum shelf life of 12 months when stored under recommended conditions. Depending on storage conditions, the shelf life may be greater than stated. Please contact your local sales representative regarding suitability for use if the shelf life of MasterLife 300L admixture has been exceeded.

#### **Related Documents**

Safety Data Sheet: MasterLife 300L admixture

#### **Additional Information**

For additional information on MasterLife 300L admixture, or its use in developing a concrete mixture with special performance characteristics, contact your local sales representative.

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in  $\sim\!40$  countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

#### **Limited Warranty Notice**

Master Builders Solutions warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders Solutions' present knowledge and experience. However, Master Builders Solutions assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders Solutions reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.





# MasterLife® 300D

# **Crystalline Capillary Waterproofing Admixture**

# MasterLife 300C

# **Concentrated Crystalline Capillary Waterproofing Admixture**

#### **Description**

MasterLife 300D and MasterLife 300C concentrated version are integral crystalline capillary waterproofing admixtures for concrete. They are designed for use in above- and below-grade applications.

The MasterLife 300 series of admixtures meet ASTM C 494/C 494M requirements for Type S, Specific Performance, admixtures.

A red-pigmented version of MasterLife 300D admixture is also available.

### **Applications**

Recommended for use in:

- Foundations
- Sewage and water treatment plants
- Water tanks and reservoirs
- Swimming pools
- Underground vaults
- Tunnel and subway systems
- Secondary containment structures
- Below-grade parking structures
- Precast components
- Water features
- Geotechnical grouting and ground improvement

#### **Features**

- Crystalline cementitious materials
- Integral addition
- Allow concrete to breathe

#### **Benefits**

- Reduce concrete permeability and, penetration of water and other liquids
- Seal hairline cracks
- Resist positive and negative side hydrostatic pressure
- Protect against sewage and industrial wastes

#### **Performance Characteristics**

**Setting Time:** The MasterLife 300 series of admixtures have little to no effect on concrete setting time within the recommended dosage ranges. However, time of setting testing is strongly recommended under project conditions when combinations of supplementary cementitious materials and/or admixtures are used, especially in cooler ambient conditions.

Permeability: The MasterLife 300 series of capillary waterproofing admixtures are portland cement-based crystalline cementitious materials that react in concrete to form non-soluble crystalline hydration products in the capillary pores of the concrete. These crystalline hydration products effectively reduce the permeability of concrete thus reducing capillary absorption and the penetration of water and other liquids.

# **Typical Data for MasterLife 300D admixture @ 2% by mass of cement** (Independent Testing, except \*)

Performance characteristic	Test method	Performance relative to untreated concrete mixture
Water Penetration	DIN 1048	100% reduction
Water Permeability	CRD-C 48	60% reduction
Capillary Absorption*	ASTM C 1585	43% reduction
Compressive Strength	ASTM C 39/C 39M	Nominal increase

Note: All the MasterLife 300 series of admixtures contain similar amounts of active ingredients at their recommended dosage ranges and, hence, provide similar performance characteristics.

#### **Guidelines for Use**

**Concrete Quality:** Crystalline capillary waterproofing admixtures such as the MasterLife 300 series of admixtures are categorized as Permeability-Reducing Admixtures (PRAs) in ACI 212.3R-16, Report on Chemical Admixtures for Concrete. These admixtures "are intended to be used in, and complement, well-proportioned concrete mixtures, not to compensate for poorly proportioned concrete mixtures. Although recommendations differ from each manufacturer, a w/cm of 0.45 or less is typical for concrete designed to resist water movement." In accordance with the recommendations provided in ACI 318, ACI 350 and ACI 212.3R, Master Builders Solutions recommends the use of the MasterLife 300 series of admixtures in good quality concrete with a maximum water-cementitious materials ratio of 0.45 and a minimum compressive strength of 4000 psi (28 MPa).

The MasterLife 300 series of admixtures meet the requirements for PRAs for concrete exposed to hydrostatic conditions (PRAH), as defined in ACI 212.3R-16.

Master Builders Solutions recommends adherence to the following guidelines provided in ACI 212.3R-16 when the MasterLife 300 series of admixtures are used:

"If the PRAH forms part of a primary waterproofing system, consider crack control measures (control joints), the admixture's crack sealing abilities, treatment of construction joints, and compatible repair systems. Also consider using concrete with the lowest drying shrinkage possible."

**Dosage:** For most applications, the recommended optimum dosage of MasterLife 300D admixture is 2% by mass of cement. The dosage of the red-pigmented version of MasterLife 300D admixture is 2.5% by mass of cement and the dosage of MasterLife 300C admixture is 1% by mass of cement. The minimum recommended dosages are 12 lb/yd³ (7.2 kg/m³) of concrete for MasterLife 300D admixture, 6 lb/yd³ (3.6 kg/ m³) of concrete for MasterLife 300C admixture and 15 lb/yd³ (9.0 kg/m³) of concrete for red-pigmented version of MasterLife 300D admixture. Depending on the types of cementitious materials and the proportions of the project-specific concrete mixtures, dosages above or below the above values may be recommended for optimum performance. Consult your local sales representative for assistance in determining the appropriate dosage of the MasterLife 300 series of admixtures for your project.

**Dispensing and Mixing:** The MasterLife 300 series of admixtures are batched at the concrete production plant in a manner similar to that for cement or other cementitious materials. The admixtures may be batched in either a central or truck mixer. Follow the procedures outlined in ASTM C 94/C 94M, Standard Specification for Ready-Mixed Concrete, for general batching and mixing instructions for concrete. Provide at least 5 minutes of mixing after the addition of the MasterLife 300 series of admixtures to ensure thorough and uniform distribution of the admixture in the concrete mixture.

#### **Product Notes**

**Corrosivity – Non-Chloride, Non-Corrosive:** The MasterLife 300 series of admixtures will neither initiate nor promote corrosion of reinforcing or prestressing steel embedded in concrete or of galvanized steel floor and roof systems. Neither calcium chloride nor other chloride-based ingredients are used in the manufacture of the MasterLife 300 series of admixtures.

**Compatibility:** The MasterLife 300 series of admixtures can be used with portland cements approved under ASTM, AASHTO or CRD specifications. They are compatible with most concrete admixtures, including all Master Builders Solutions admixtures. The MasterLife 300 series of admixtures are recommended for use with high-range water-reducing admixtures, such as the MasterGlenium® series, for maximum workability while maintaining a low water-cementitious materials ratio.

#### Storage and Handling

The MasterLife 300 series of admixtures must be stored in a clean, dry area and must be protected from exposure to moisture. MasterLife 300D admixture must be maintained at a minimum temperature of 45 °F (7 °C). Preferably, MasterLife 300C admixture in water-soluble pods should be stored at ambient temperatures in the range of 40 °F to 105 °F (4 °C to 41 °C). If stored below 40 °F (4 °C), the water-soluble pods can become brittle and split open while handling. To alleviate this, it is recommended to warm the pails with the pods to temperatures above 40 °F (4 °C) before use. The MasterLife 300 series of admixtures have a shelf life of one year when stored under recommended conditions.

#### **Packaging**

MasterLife 300D admixture is available in 12 lb (5.5 kg) and 24 lb (11 kg) shreddable bags, and in 12 lb (5.5 kg) water-soluble pods. The redpigmented version of MasterLife 300D admixture is available in 15 lb (7 kg) and 30 lb (14 kg) shreddable bags. MasterLife 300C admixture is available in 6 lb (2.7 kg) water-soluble pods.

#### **Related Documents**

Safety Data Sheets: MasterLife 300D admixture and MasterLife 300C admixture

#### **Additional Information**

For additional information on the MasterLife 300 series of admixtures or their use in developing concrete mixtures with special performance characteristics, contact your local sales representative.

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

#### **Limited Warranty Notice**

Master Builders Solutions Admixtures US, LLC ("Master Builders Solutions") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders Solutions' present knowledge and experience. However, Master Builders Solutions assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders Solutions reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.



#### **Master Builders Solutions Admixtures US, LLC**



July 31, 2023

#### Sample Company

**Project:** Sample Certificate of Conformance

Project location: US and Canada

Certificate of Conformance

MasterLife® 300L

Master Builders Solutions Admixture for Concrete

#### TO WHOM IT MAY CONCERN:

I, Mark E. Piechuta, Cleveland, Ohio certify:

That, MasterLife 300L admixture is an integral liquid crystalline capillary waterproofing admixture for concrete; and

That, MasterLife 300L admixture and PS-1730 admixture are the same product having identical composition, differing only in designation; and

That, neither calcium chloride nor any chloride-based ingredient is used in the manufacture of MasterLife 300L admixture; and

That, MasterLife 300L admixture, based on the chlorides originating from all the ingredients used in its manufacture, contributes less than 0.00014 percent (1.4 ppm) chloride ions by weight of the cement when used at the rate of 65 mL per 100 kg (1 fluid ounce per 100 pounds) of cement; and

That MasterLife 300L admixture is NSF Certified in accordance with NSF/ANSI/CAN Std. 61, Drinking Water System Components-Health Effects and that it is, therefore suitable for use in properly cured concrete structures in contact with potable water; and

That, MasterLife 300L admixture meets the requirements for a Type S, Specific Performance Admixture as specified in ASTM C494/C494M and AASHTO M194, Standard Specification for Chemical Admixtures for Concrete.

Mark Piechuta

Sr. Technical Specialist

Mal & Righton

#### **Master Builders Solutions Admixtures US, LLC**



July 31, 2023

#### Sample Company

**Project:** Sample Certificate of Conformance

Project location: US and Canada

Certificate of Conformance

MasterLife® 300C

Master Builders Solutions Concentrated Integral Crystalline Capillary Waterproofing Admixture for Concrete

#### TO WHOM IT MAY CONCERN:

I, Richard Hubbard, Sr. Technical Marketing Specialist for Master Builders Solutions, Cleveland, Ohio, certify:

That, MasterLife 300C admixture is a concentrated integral crystalline capillary waterproofing admixture for concrete; and

That, MasterLife 300C admixture is a concentrated version of MasterLife 300D integral crystalline capillary waterproofing admixture for concrete; and

That, MasterLife 300C admixture at a dosage of 1 percent by mass of cement provides the same active ingredients as 2 percent by mass of cement of MasterLife 300D admixture; and That, neither calcium chloride nor any chloride-based ingredient is used in the manufacture of MasterLife 300C admixture; and

That, MasterLife 300C admixture is certified by NSF in accordance with NSF/ANSI/CAN 61-Drinking Water System Components-Health Effects, and that it is therefore suitable for use in properly cured concrete structures in contact with potable water; and

That, MasterLife 300C admixture meets the requirements for a Type S, Specific Performance Admixture specified in ASTM C494/C494M and AASHTO M194, Standard Specification for Chemical Admixtures for Concrete.

Richard Hubbard

Sr. Technical Specialist

Richard Jubbard III

#### **Master Builders Solutions Admixtures US, LLC**



July 31, 2023

#### Sample Company

**Project:** Sample Certificate of Conformance

Project location: US and Canada

Certificate of Conformance

MasterLife® 300D

Integral Crystalline Capillary Waterproofing Admixture for Concrete

I, Richard Hubbard, Sr. Technical Marketing Specialist for Master Builders Solutions US LLC, Cleveland, Ohio, certify:

That MasterLife 300D admixture is an integral crystalline capillary waterproofing admixture for concrete; and

That MasterLife 300D admixture and Rheomac 300D admixture are the same product having identical composition, differing only in designation; and

That MasterLife 300D admixture is also available in a red-pigmented version; and

That neither calcium chloride nor any chloride-based ingredient is used in the manufacture of MasterLife 300D admixture; and

That MasterLife 300D admixture is certified by NSF to NSF/ANSI Standard 61-Drinking Water System Components-Health Effects, and that it is therefore suitable for use in properly cured concrete structures in contact with potable water; and

That MasterLife 300D admixture meets the requirements for a Type S, Specific Performance Admixture specified in ASTM C494/C494M and AASHTO M194, the Standard Specifications for Chemical Admixtures for Concrete.

Richard Hubbard

Sr. Technical Specialist

Richard Jubbond III

created via: HPDC Online Builder

**HPD UNIQUE IDENTIFIER: 27695** 

CLASSIFICATION: 03 30 00 Cast-in-Place Concrete

PRODUCT DESCRIPTION: MasterLife 300L admixture is an integral crystalline capillary waterproofing liquid admixture for concrete. Designed for use in above- and below-grade applications, MasterLife 300L admixture reacts in concrete to form non-soluble crystalline hydration products in the capillary pores of the concrete. These crystalline hydration products effectively reduce the permeability of concrete and seal the hairline cracks.

#### Section 1: Summary

#### **Basic Method / Product Threshold**

#### **CONTENT INVENTORY**

#### **Inventory Reporting Format**

- C Nested Materials Method
- Basic Method

#### Threshold Disclosed Per

- Material
- Product

#### **Threshold Level**

- C 1,000 ppm O Per GHS SDS
- Other

#### Residuals/Impurities

- Considered
- C Partially Considered
- O Not Considered

Explanation(s) provided for Residuals/Impurities?

Yes ○ No

All Substances Above the Threshold Indicated Are:

Characterized

% weight and role provided for all substances.

Screened ○ Yes Ex/SC ⊙ Yes ○ No

All substances screened using Priority Hazard Lists with

results disclosed.

Identified

○ Yes Ex/SC ○ Yes ○ No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

#### **CONTENT IN DESCENDING ORDER OF QUANTITY**

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY

**GREENSCREEN SCORE | HAZARD TYPE** 

MASTERLIFE 300L [ WATER (PRIMARY CASRN IS 7732-18-5) BM-4

UNDISCLOSED LT-P1 | END CARAMEL NoGS ]

SODIUM CARBONATE LT-UNK | EYE UNDISCLOSED LT-UNK

### **INVENTORY AND SCREENING NOTES:**

Contents highest concern GreenScreen

Benchmark or List translator Score ... LT-P1

Number of Greenscreen BM-4/BM3 contents ... 1

All impurities and residuals are considered within the product review. Note: Based on information received from our raw material suppliers and our knowledge of the product compositions, please be advised that the unintentional impurity formaldehyde may exist up to 50 ppm

# **VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

VOC Content data is not applicable for this product category.

**CERTIFICATIONS AND COMPLIANCE** See Section 3 for additional

VOC emissions: Exempt

Nanomaterial ... No

#### **CONSISTENCY WITH OTHER PROGRAMS**

Pre-checked for LEED v4 Material Ingredients Option 1 and Option 2

Third Party Verified?

Yes

No

PREPARER: Self-Prepared

VERIFIER:

**VERIFICATION #:** 

SCREENING DATE: 2021-01-11 PUBLISHED DATE: 2022-02-28

EXPIRY DATE: 2024-01-11

### Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

#### **MASTERLIFE 300L**

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: All substances including residuals and impurities are considered in the product review within the threshold.

OTHER PRODUCT NOTES: Concrete admixtures are introduced into a concrete mixture and would not be considered a finished, installed product but a material input to a concrete mixture.

#### WATER (PRIMARY CASRN IS 7732-18-5)

ID: 652133-48-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-01-11 22:03:25			
%: 85.0000	GS: <b>BM-4</b>	RC: None	NANO: No	SUBSTANCE ROLE: Solvent	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNI	NGS		
None found			No warnings fo	ound on HPD Priority Hazard Lists	

SUBSTANCE NOTES: This substance is the primary ingredient in MasterLife 300L

SODIUM CARBONATE ID: 497-19-8

HAZARD TYPE AGENCY AND LIST TITLES WARNING	GS	
	H319 - Causes serious eye irritation	

SUBSTANCE NOTES: All impurities and residuals are included in the product evaluation above the threshold.

UNDISCLOSED ID: Undisclosed

%: 4.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Polymer species

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 23:03:40

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This substance is considered IP for the product protection.

UNDISCLOSED ID: Undisclosed

HAZARD SCREENING METHOD:	Pharos Chemical and Materials Library	HAZARD SO	CREENING DATE:	2021-01-11 23:10:11		
%: 2.0000	GS: LT-P1	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Solvent		
HAZARD TYPE	AGENCY AND LIST TITLES	WAR	NINGS			
END	TEDX - Potential Endocrine Disruptors	Poter	ntial Endocrine Di	sruptor		
SUBSTANCE NOTES: This substance is classified as IP for product protection.						

CARAMEL				ID: 8028-89-5
HAZARD SCREENING ME	THOD: Pharos Chemical and Materials Library	HAZARD SC	REENING DATE:	2021-01-11 23:12:10
%: 0.1000	GS: NoGS	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Dye
HAZARD TYPE	AGENCY AND LIST TITLES	WARN	IINGS	
None found			No warnings for	ound on HPD Priority Hazard Lists
SUBSTANCE NOTES: All	impurities and residuals are evaluated within the	e threshold.		



#### Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

Exempt

**VOC EMISSIONS** 

CERTIFYING PARTY: Self-declared

ISSUE DATE: 2020-01- EXPIRY DATE:

CERTIFIER OR LAB: USGBC

APPLICABLE FACILITIES: Master Builders Solutions -

Admixture Systems Plants

**CERTIFICATE URL:** 

CERTIFICATION AND COMPLIANCE NOTES: Per LEED Indoor Environmental Quality, Low-Emitting Materials: Concrete is an inherently nonemitting source. Products that are inherently non-emitting sources of VOC's (Concrete, Stone, ceramic, powder-coated metals, plated or anodized metal, glass, clay brick, and unfinished/untreated solid wood flooring) are considered fully compliant without any VOC emissions testing if they do not include integral organic based surface coatings, binders, or sealants.



#### **Section 4: Accessories**

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

#### Section 5: General Notes

For additional information visit the Master Builders Solutions product website at:

https://www.master-builders-solutions.com/en-us

#### MANUFACTURER INFORMATION

MANUFACTURER: Master Builders Solutions

ADDRESS: 23700 Chagrin Blvd Beachwood Ohio 44122, USA

WEBSITE: https://www.master-builders-solutions.com/en-us

CONTACT NAME: David Green **TITLE: Manager Sustainability** 

PHONE: 216-839-7803

EMAIL: david.green@mbcc-group.com

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

#### **KEY**

**Hazard Types** 

**AQU** Aquatic toxicity

**CAN** Cancer

**DEV** Developmental toxicity

**END** Endocrine activity

EYE Eye irritation/corrosivity **GEN** Gene mutation

**GLO** Global warming

**LAN** Land toxicity

MAM Mammalian/systemic/organ toxicity

**MUL** Multiple

**NEU** Neurotoxicity

NF Not found on Priority Hazard Lists

**OZO** Ozone depletion

PBT Persistent, bioaccumulative, and toxic

PHY Physical hazard (flammable or reactive)

**REP** Reproductive

**RES** Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

**UNK** Unknown

#### GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)

BM-3 Benchmark 3 (use but still opportunity for improvement)

BM-2 Benchmark 2 (use but search for safer substitutes)

BM-1 Benchmark 1 (avoid - chemical of high concern)

BM-U Benchmark Unspecified (due to insufficient data)

LT-P1 List Translator Possible 1 (Possible Benchmark-1)

LT-1 List Translator 1 (Likely Benchmark-1)

LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the

information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)

NoGS No GreenScreen.

#### **Recycled Types**

PreC Pre-consumer recycled content

PostC Post-consumer recycled content

UNK Inclusion of recycled content is unknown

None Does not include recycled content

#### Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

#### **Inventory Methods:**

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material Nested Method / Product Threshold Substances listed within each material per threshold indicated per product Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology

Third Party Verified Verification by independent certifier approved by HPDC

Preparer Third party preparer, if not self-prepared by manufacturer

Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.

created via: HPDC Online Builder

**HPD UNIQUE IDENTIFIER: 27569** 

CLASSIFICATION: 03 30 00 Cast-in-Place Concrete

PRODUCT DESCRIPTION: MasterLife 300D admixture is an integral crystalline capillary waterproofing admixture for concrete. Designed for use in above- and below-grade applications, MasterLife 300D admixture reacts in concrete to form non-soluble crystalline hydration products in the capillary pores of the concrete. These crystalline hydration products effectively reduce the permeability of concrete and seal the hairline cracks.

#### Section 1: Summary

#### **Basic Method / Product Threshold**

#### CONTENT INVENTORY

**Inventory Reporting Format** 

C Nested Materials Method Rasic Method

**Threshold Disclosed Per** 

Material

Product

**Threshold Level** 

C 1,000 ppm

C Per GHS SDS

Other

Residuals/Impurities

Considered

C Partially Considered

Not Considered

Explanation(s) provided for Residuals/Impurities?

Yes ○ No

All Substances Above the Threshold Indicated Are:

Characterized

○ Yes Ex/SC Yes No

% weight and role provided for all substances.

Screened

○ Yes Ex/SC ⊙ Yes ○ No

All substances screened using Priority Hazard Lists with

results disclosed.

Identified

○ Yes Ex/SC ○ Yes ⊙ No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

#### CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY

**GREENSCREEN SCORE | HAZARD TYPE** 

MASTERLIFE 300D [ PORTLAND CEMENT LT-P1 | CAN | END QUARTZ LT-1 | CAN SODIUM CARBONATE LT-UNK | EYE TITANIUM DIOXIDE LT-1 | CAN | END LIMESTONE LT-UNK PHOSPHOGYPSUM LT-UNK UNDISCLOSED LT-UNK UNDISCLOSED LT-P1 TARTARIC ACID LT-UNK UNDISCLOSED BM-2 | RES FERRIC OXIDE BM-1 | CAN ]

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1

Nanomaterial ... No

**INVENTORY AND SCREENING NOTES:** 

All impurities and residuals are considered within the product review. Note: Based on information received from our raw material suppliers and our knowledge of the product compositions, this product does not contain any listed substances from the Living Building Challenge Red List Chemicals of Concern, v 3.1. Since we do not expect these substances to be present, we do not specifically run any analysis on our raw materials or end products to measure for these substances.

#### **VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

VOC Content data is not applicable for this product category.

**CERTIFICATIONS AND COMPLIANCE** See Section 3 for additional

listinas.

VOC emissions: Exempt

#### **CONSISTENCY WITH OTHER PROGRAMS**

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

O Yes No

PREPARER: Self-Prepared

VERIFIER: **VERIFICATION #:**  SCREENING DATE: 2021-01-11 PUBLISHED DATE: 2022-02-11 EXPIRY DATE: 2024-01-11

#### Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

#### **MASTERLIFE 300D**

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: All substances including residuals and impurities are considered in the product review within the threshold.

OTHER PRODUCT NOTES: Concrete admixtures are introduced into a concrete mixture and would not be considered a finished, installed product but a material input to a concrete mixture.

PORTLAND CEMENT ID: 65997-15-1 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 17:51:10 %: 50.0000 GS: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Binder WARNINGS HAZARD TYPE AGENCY AND LIST TITLES CAN MAK Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification END Potential Endocrine Disruptor **TEDX - Potential Endocrine Disruptors** 

SUBSTANCE NOTES: All impurities and residuals within the threshold are included in the review.

**QUARTZ** ID: 14808-60-7 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 18:30:43 %: 25.0000 GS: LT-1 RC: None NANO: No SUBSTANCE ROLE: Filler WARNINGS **HAZARD TYPE** AGENCY AND LIST TITLES CAN **US CDC - Occupational Carcinogens** Occupational Carcinogen CAN CA EPA - Prop 65 Carcinogen - specific to chemical form or exposure route CAN US NIH - Report on Carcinogens Known to be Human Carcinogen (respirable size occupational setting) CAN MAK Carcinogen Group 1 - Substances that cause cancer in CAN **IARC** Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources CAN **IARC** Group 1 - Agent is Carcinogenic to humans CAN GHS - Australia H350i - May cause cancer by inhalation CAN GHS - New Zealand 6.7A - Known or presumed human carcinogens CAN GHS - Japan Carcinogenicity - Category 1A [H350]

SODIUM CARBONATE

ID: 497-19-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 18:35:27

%: 7.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Activator

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

EYE EU - GHS (H-Statements) H319 - Causes serious eye irritation

SUBSTANCE NOTES: All impurities and residuals within the product are reviewed within the threshold.

TITANIUM DIOXIDE ID: 13463-67-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 19:00:36 %: 2.0000 GS: LT-1 RC: None NANO: No SUBSTANCE ROLE: Pigment **HAZARD TYPE** AGENCY AND LIST TITLES WARNINGS CAN EU - GHS (H-Statements) H351 - Suspected of causing cancer CAN **US CDC - Occupational Carcinogens** Occupational Carcinogen CAN CA EPA - Prop 65 Carcinogen - specific to chemical form or exposure route CAN **IARC** Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources CAN MAK Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value **END TEDX - Potential Endocrine Disruptors** Potential Endocrine Disruptor CAN MAK Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: All impurities and residuals in the product are included in the evaluation within the threshold.

LIMESTONE ID: 1317-65-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 18:37:52

%: 1.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: All impurities and residuals are considered for the product within the threshold.

PHOSPHOGYPSUM ID: 13397-24-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 18:45:15

%: 1.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Processing regulator

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: All impurities and residuals in the product are considered within the threshold.

UNDISCLOSED ID: Undisclosed

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 18:48:21

%: 1.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: All impurities and residuals in the product are evaluated within the threshold

UNDISCLOSED ID: Undisclosed

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 18:54:33

%: 1.0000 GS: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Binder

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: All impurities and residuals in the product are included within the threshold.

TARTARIC ACID ID: 87-69-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 19:04:20

%: 1.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Processing regulator

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: All impurities and residuals in the product are reviewed within the threshold

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-01-11 19:09:50

%: Impurity/Residual GS: BM-2 RC: None NANO: No SUBSTANCE ROLE: Impurity/Residual

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

RES AOEC - Asthmagens Asthmagen (Rs) - sensitizer-induced

SUBSTANCE NOTES: Based on information received from our raw material suppliers and our knowledge of the product composition, the unintentional impurity of aluminum oxide exists up to 0.09%.

FERRIC OXIDE ID: 1309-37-1

**UNDISCLOSED** 

**ID: Undisclosed** 

HAZARD SCREENING METHOD:	Pharos Chemical and Materials Library	HAZARD SCF	REENING DATE:	2021-01-11 19:12:01
%: 0.0000 - 10.0000	GS: <b>BM-1</b>	RC: None	NANO: No	SUBSTANCE ROLE: Pigment
HAZARD TYPE	AGENCY AND LIST TITLES	WAR	NINGS	
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic e but not sufficient for classification		

 ${\small \texttt{SUBSTANCE NOTES: All impurities and residuals in the product are evaluated within the threshold.} \\$ 



#### **Section 3: Certifications and Compliance**

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

**VOC EMISSIONS** 

Exempt

CERTIFYING PARTY: Self-declared

ISSUE DATE: 2020-01- EXPIRY DATE:

CERTIFIER OR LAB: USGBC

APPLICABLE FACILITIES: Master Builders Solutions -Admixture Systems Plants

**CERTIFICATE URL:** 

CERTIFICATION AND COMPLIANCE NOTES: Per LEED Indoor Environmental Quality, Low-Emitting Materials: Concrete is an inherently nonemitting source. Products that are inherently non-emitting sources of VOC's (Concrete, Stone, ceramic, powder-coated metals, plated or anodized metal, glass, clay brick, and unfinished/untreated solid wood flooring) are considered fully compliant without any VOC emissions testing if they do not include integral organic based surface coatings, binders, or sealants.



#### **Section 4: Accessories**

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

#### Section 5: General Notes

For additional information visit the Master Builders Solutions product website at:

https://www.master-builders-solutions.com/en-us

#### MANUFACTURER INFORMATION

MANUFACTURER: Master Builders Solutions

ADDRESS: 23700 Chagrin Blvd Beachwood Ohio 44122, USA

WEBSITE: https://www.master-builders-solutions.com/en-us

**CONTACT NAME: David Green** TITLE: Manager Sustainability

PHONE: 216-839-7803

EMAIL: david.green@mbcc-group.com

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

#### **KEY**

#### **Hazard Types**

**AQU** Aquatic toxicity

**CAN** Cancer

**DEV** Developmental toxicity

**END** Endocrine activity

EYE Eye irritation/corrosivity

**GEN** Gene mutation

**GLO** Global warming

**LAN** Land toxicity

MAM Mammalian/systemic/organ toxicity

**MUL** Multiple

**NEU** Neurotoxicity

NF Not found on Priority Hazard Lists

**OZO** Ozone depletion

PBT Persistent, bioaccumulative, and toxic

PHY Physical hazard (flammable or reactive)

**REP** Reproductive

**RES** Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

**UNK** Unknown

#### GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)

BM-3 Benchmark 3 (use but still opportunity for improvement)

BM-2 Benchmark 2 (use but search for safer substitutes)

BM-1 Benchmark 1 (avoid - chemical of high concern)

BM-U Benchmark Unspecified (due to insufficient data)

LT-P1 List Translator Possible 1 (Possible Benchmark-1)

LT-1 List Translator 1 (Likely Benchmark-1)

to a LT-1 or LTP1 score.)

#### **Recycled Types**

PreC Pre-consumer recycled content

PostC Post-consumer recycled content

UNK Inclusion of recycled content is unknown

None Does not include recycled content

LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the

information contained within the list did not result in a clear mapping

NoGS No GreenScreen.

#### Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

#### **Inventory Methods:**

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material Nested Method / Product Threshold Substances listed within each material per threshold indicated per product Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology

Third Party Verified Verification by independent certifier approved by HPDC

Preparer Third party preparer, if not self-prepared by manufacturer

Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 22931

CLASSIFICATION: 03 30 00 Cast-in-Place Concrete

PRODUCT DESCRIPTION: MasterLife 300C admixture is an integral crystalline capillary waterproofing admixture for concrete. Designed for use in above- and below-grade applications, MasterLife 300C admixture reacts in concrete to form non-soluble crystalline hydration products in the capillary pores of the concrete. These crystalline hydration products effectively reduce the permeability of concrete and seal the hairline cracks.

#### Section 1: Summary

#### **Basic Method / Product Threshold**

#### **CONTENT INVENTORY**

**Inventory Reporting Format** 

- C Nested Materials Method
- Basic Method

**Threshold Disclosed Per** 

- Material
- Product

Threshold level

- C 1,000 ppm
- C Per GHS SDS
- Other

Residuals/Impurities

- Considered
- C Partially Considered
- O Not Considered

Explanation(s) provided for Residuals/Impurities?

Yes ○ No

All Substances Above the Threshold Indicated Are:

Characterized

○ Yes Ex/SC ⊙ Yes ○ No

% weight and role provided for all substances.

Screened

○ Yes Ex/SC ⊙ Yes ○ No

All substances screened using Priority Hazard Lists with results disclosed.

Identified

○ Yes Ex/SC ○ Yes ⊙ No

One or more substances not disclosed by Name (Specific or Generic) and Identifier and/ or one or more Special Condition did not follow guidance.

#### **CONTENT IN DESCENDING ORDER OF QUANTITY**

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

MASTERLIFE 300C [ PORTLAND CEMENT LT-P1 | END | CAN SODIUM CARBONATE LT-UNK | EYE FERRIC OXIDE BM-1 | CAN LIMESTONE, CALCIUM CARBONATE LT-UNK D-TARTARIC ACID LT-UNK TITANIUM DIOXIDE LT-1 | CAN | END GYPSUM LT-UNK QUARTZ LT-1 | CAN CALCIUM OXIDE LT-P1 MAGNESIUM OXIDE LT-UNK |

**CAN UNDISCLOSED BM-2**]

Benchmark or List translator Score ... BM-1

Number of Greenscreen BM-4/BM3 contents ... 0

Nanomaterial ... No

#### **INVENTORY AND SCREENING NOTES:**

Contents highest concern GreenScreen

The assessment including residuals and impurities has verified all hazard classifications are conducted within the provisions of North American countries' regulatory requirements. Note: The MasterLife 300C grey and red products do not contain any red list substances from the Living Building Challenge Red List v 4.0.

#### **VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

VOC Content data is not applicable for this product category.

**CERTIFICATIONS AND COMPLIANCE** See Section 3 for additional

listings.

VOC emissions: Exempt

#### **CONSISTENCY WITH OTHER PROGRAMS**

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

Yes No

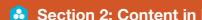
PREPARER: Self-Prepared

VERIFIER:

**VERIFICATION #:** 

**SCREENING DATE: 2020-04-27 PUBLISHED DATE: 2020-11-13** 

EXPIRY DATE: 2023-04-27



Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

#### **MASTERLIFE 300C**

PRODUCT THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: All substances including residuals and impurities are considered in the regulatory evaluation. The assessment has verified all hazard classifications are conducted within the provisions of North American countries' regulatory requirements.

OTHER PRODUCT NOTES: Concrete admixtures are introduced into a concrete mixture and would not be considered a finished, installed product but a material input to a concrete mixture.

**PORTLAND CEMENT** ID: 65997-15-1 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-04-27 SUBSTANCE ROLE: Binder %: 25.0000 GS: LT-P1 RC: None NANO: No **HAZARD TYPE** AGENCY AND LIST TITLES WARNINGS **ENDOCRINE TEDX - Potential Endocrine Disruptors Potential Endocrine Disruptor CANCER** MAK Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SODIUM CARBONATE					ID: 497-19-8
HAZARD SCREENING METHOD: Pha	ros Chemical and Materials Library	HAZARD SCRE	EENING DATE:	2020-04-27	
0/ - 45 0000	O. LT LINIZ	DO: No.	NIANIO: NI-	OUDOTANOE DOLE	Disalas

%: 15.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Binder **HAZARD TYPE** AGENCY AND LIST TITLES WARNINGS

H319 - Causes serious eye irritation

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

EU - GHS (H-Statements)

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

**FERRIC OXIDE** ID: 1309-37-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCI	2020-04-27	
%: 10.0000	GS: <b>BM-1</b>	RC: None	NANO: No	SUBSTANCE ROLE: Pigment
HAZARD TYPE	AGENCY AND LIST TITLES	WARN	INGS	
CANCER	MAK	Carcinogen Group 3B - Evidence of carcinogenic edut not sufficient for classification		•

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

**EYE IRRITATION** 

HAZARD SCREENING METHOD:	Pharos Chemical and Materials Library	HAZARD SC	REENING DATE:	2020-04-27
%: 3.0000	GS: LT-UNK	RC: None	NANO: <b>No</b>	SUBSTANCE ROLE: Binder
HAZARD TYPE	AGENCY AND LIST TITLES	WARN	IINGS	
None found			No warnings for	ound on HPD Priority Hazard Lists

D-TARTARIC ACID ID: 87-69-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2020-04-27			
%: 1.0000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Buffer	
HAZARD TYPE	AGENCY AND LIST TITLES	WARNI	NGS		
None found			No warnings fo	ound on HPD Priority Hazard Lists	

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

TITANIUM DIOXIDE ID: 13463-67-7

HAZARD SCREENING METHOD:	Pharos Chemical and Materials Library	HAZ	ARD SC	REENING DATE:	2020-04-27
%: 0.0000 - 10.0000	GS: <b>LT-1</b>	RC:	None	NANO: No	SUBSTANCE ROLE: Pigment
HAZARD TYPE	AGENCY AND LIST TITLES		WARN	INGS	
CANCER	US CDC - Occupational Carcinogens		Occupational Carcinogen		
CANCER	CA EPA - Prop 65		Carcinogen - specific to chemical form or exposure route		
CANCER	IARC		•	2B - Possibly ca	arcinogenic to humans - inhaled
ENDOCRINE	TEDX - Potential Endocrine Disruptors		Potent	ial Endocrine Di	sruptor
CANCER	MAK				- Evidence of carcinogenic effects tablish MAK/BAT value
CANCER	MAK			ogen Group 4 - I k under MAK/BA	Non-genotoxic carcinogen with

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

GYPSUM ID: 13397-24-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-04-27

%: 0.0000 - 7.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Buffer

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

QUARTZ ID: 14808-60-7

HAZARD SCREENING METHOD:	Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2020-04-27		
%: 0.0000 - 5.0000	GS: <b>LT-1</b>	RC: None NANO: No SUBSTANCE ROLE: Filler		
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
CANCER	IARC	Group 1 - Agent is Carcinogenic to humans		
CANCER	US CDC - Occupational Carcinogens	Occupational Carcinogen		
CANCER	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route		
CANCER	IARC	Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources		
CANCER	US NIH - Report on Carcinogens	Known to be Human Carcinogen (respirable size - occupational setting)		
CANCER	MAK	Carcinogen Group 1 - Substances that cause cancer in man		
CANCER	GHS - New Zealand	6.7A - Known or presumed human carcinogens		
CANCER	GHS - Japan	Carcinogenicity - Category 1A [H350]		
CANCER	GHS - Australia	H350i - May cause cancer by inhalation		

CALCIUM OXIDE ID: 1305-78-8

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library

%: 0.0000 - 5.0000

GS: LT-P1

RC: None

NANO: No

SUBSTANCE ROLE: Binder

HAZARD TYPE

AGENCY AND LIST TITLES

WARNINGS

None found

No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

MAGNESIUM OXIDE ID: 1309-48-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-04-27

%: 0.0000 - 5.0000

GS: LT-UNK

RC: None NANO: No SUBSTANCE ROLE: Buffer

HAZARD TYPE AGENCY AND LIST TITLES

WARNINGS

CANCER

MAK

Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

SUBSTANCE NOTES: All residuals and impurities are considered in the evaluation of this product.

#### UNDISCLOSED

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2020-04-27

%: 0.0000 - 2.0000 GS: BM-2 RC: None NANO: No SUBSTANCE ROLE: Filler

HAZARD TYPE AGENCY AND LIST TITLES WARNINGS

None found No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: This is a proprietary ingredient. All residuals and impurities are considered in the evaluation of this product.



#### Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

**VOC EMISSIONS** Exempt

APPLICABLE FACILITIES: Master Builders Solutions -

CERTIFYING PARTY: Self-declared

ISSUE DATE: 2020-01- EXPIRY DATE:

CERTIFIER OR LAB: USGBC

Admixture Systems Plants

**CERTIFICATE URL:** 

CERTIFICATION AND COMPLIANCE NOTES: Per LEED Indoor Environmental Quality, Low-Emitting Materials: Concrete is an inherently nonemitting source. Products that are inherently non-emitting sources of VOC's (Concrete, Stone, ceramic, powder-coated metals, plated or anodized metal, glass, clay brick, and unfinished/untreated solid wood flooring) are considered fully compliant without any VOC emissions testing if they do not include integral organic based surface coatings, binders, or sealants.



#### **Section 4: Accessories**

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

#### Section 5: General Notes

For additional information visit the Master Builders Solutions product website at: https://www.master-builders-solutions.basf.us/en-us/architectsand-designers

#### MANUFACTURER INFORMATION

MANUFACTURER: Master Builders Solutions

ADDRESS: 23700 Chagrin Blvd Beachwood Ohio 44122, USA

WEBSITE: https://www.master-builders-solutions.basf.us/en-

us/architects-and-designers

CONTACT NAME: David R Green TITLE: Manager Sustainability PHONE: 216-839-7803

EMAIL: david.green@mbcc-group.com

KEY

Hazard Types

**AQU** Aquatic toxicity

**CAN** Cancer

DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity

CTL Lye IIIItation/comosit

**GEN** Gene mutation

**GLO** Global warming

LAN Land toxicity

MAM Mammalian/systemic/organ toxicity

MUL Multiple
NEU Neurotoxicity

NF Not found on Priority Hazard Lists

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

**OZO** Ozone depletion

PBT Persistent, bioaccumulative, and toxic

PHY Physical hazard (flammable or reactive)

**REP** Reproductive

**RES** Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

**UNK** Unknown

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)

BM-3 Benchmark 3 (use but still opportunity for improvement)

BM-2 Benchmark 2 (use but search for safer substitutes)

BM-1 Benchmark 1 (avoid - chemical of high concern)

BM-U Benchmark Unspecified (due to insufficient data)

LT-P1 List Translator Possible 1 (Possible Benchmark-1)

LT-1 List Translator 1 (Likely Benchmark-1)

LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping

to a LT-1 or LTP1 score.)
NoGS No GreenScreen.

**Recycled Types** 

PreC Pre-consumer recycled content

PostC Post-consumer recycled content

**UNK** Inclusion of recycled content is unknown

None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material Nested Method / Product Threshold Substances listed within each material per threshold indicated per product

Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology

Third Party Verified Verification by independent certifier approved by HPDC

Preparer Third party preparer, if not self-prepared by manufacturer

Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.





# **Integral Waterproofing**

Ketch Lake Dam



Ketch Lake Dam, built by the landowner Frank Ketch in the 1930's, was built of cobblestone and was a stock pond for cattle. Subsequently, it became a recreational pond. When the dam started giving way in 2010, the Army Corps of Engineers decided to build a new dam directly behind the existing dam. The new dam is 36 feet (11 m) high, 140 feet (43 m) wide and 6 feet (1.8 m) thick at the top and 80 feet (24 m) wide and 20 feet (6 m) thick at the bottom.

Project:

Ketch Lake Dam

Location:

Fort Sill, OK

Owner:

Army Corps of Engineers

**Engineer:** 

Army Corps of Engineers

Contractor:

M.L. Young Construction

**Concrete Producer:** 

Lawton Transit Mix

Products:

MasterLife® 300D integral waterproofing admixture

MasterSet® DELVO

hydration-controlling admixture

MasterPolyheed® 1020 mid-range water-reducing admixture

**Market Sector:** 

Ready-mixed concrete





#### The Challenge

For this mass concrete application, the specifications required the concrete temperature at the point of delivery to be below 85 °F (29 °C). Additionally, the concrete had to be watertight.

#### **The Solution**

Concrete producer Lawton Transit Mix of Lawton, Oklahoma, supplied a total of 900 cubic yards (700 cubic meters) of concrete containing MasterLife 300D integral waterproofing admixture from Master Builders Solutions for the dam. Temperature control was critical for the hour-long haul covering 20 miles (32 km) and with over 90 °F (32 °C) ambient temperatures. Lawton Transit Mix used slag cement, Class C fly ash, chilled water, and MasterSet DELVO hydration-controlling admixture from Master Builders Solutions to reduce the heat of hydration of the concrete mixture. The concrete produced met the requirements specified by the Army Corps of Engineers and the concrete was placed successfully in 6 to 8 feet (1.8 to 2.4 m) lifts.

#### **Master Builders Solutions**

The Master Builders Solutions brand brings expertise to create chemical solutions for construction using experience gained from more than a century in the construction industry.

The know-how and experience of a global community of construction experts form the core of Master Builders Solutions. We combine the right elements from our portfolio to solve your specific construction challenges. We collaborate across areas of expertise and regions and draw on the experience gained from countless construction projects worldwide. We leverage global technologies, as well as our in-depth knowledge of local building needs, to develop innovations that help make you more successful and drive sustainable construction.

The comprehensive portfolio under the Master Builders Solutions brand encompasses concrete admixtures, cement additives, chemical solutions for underground construction, fiber reinforcement solutions and waterproofing solutions.















# MasterLife® 300D

# Crystalline Capillary Waterproofing Admixture

#### **Project**

The Summit: Bechtel Family National Scout Reserve

Location

Fayette County, WV

Boy Scouts of America

Architect

E.T. Boggess Architects

Developer

**Trinity Works** 

**Concrete Producer** 

**Boxley Materials** 

Volume

9,150 yd<sup>3</sup> (7,000 m<sup>3</sup>) (Self-Consolidating Concrete)

**Application** 

330 Shower houses

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# MasterLife® 300D

# Crystalline Capillary Waterproofing Admixture

**Project** 

Mayo Clinic Medical Building

Location

Jacksonville, FL

**Owner** 

Mayo Clinic

**Design Engineer** 

Walter P. Moore

Contractor

Robins & Morton

**Concrete Producer** 

Titan Concrete Inc.

**Concrete Volume** 1200 yd3 (920 m3)

**Application** 

Slab-on-Ground & Lightweight Roof















### MasterLife® 300D

# Crystalline Capillary Waterproofing Admixture

**Project** 

Pasadena Casting Pond

Location

Pasadena, CA

Owner

Pasadena Casting Club

**Design Engineer** 

Public Works Dept., City of Pasadena

Contractor

Mallcraft. Inc.

**Concrete Producer** Holliday Rock Co., Inc.

**Application** 

Shotcrete for slab-on-ground

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# MasterLife® 300D

# Crystalline Capillary Waterproofing Admixture

**Project** 

Sarasota Memorial Hospital

Location

Sarasota, FL

Owner

Sarasota Memorial Hospital

**Design Engineer** 

Gresham, Smith & Partners

Contractor

Skanska

**Concrete Producer** 

Gate Precast Company

Volume

725 yd3 (555 m3)

**Application** 

**Architectural Precast Panels** 

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# MasterLife® 300D

# Crystalline Capillary Waterproofing Admixture

**Project** 

Sherman Circle

Location

Van Nuys, CA

Owner

**IMT** Residential

**Design Engineer** 

Masoud Dejban Engineering Inc.

Contractor

IMT Residential

**Concrete Producer** 

Holliday Rock

**Concrete Volume** 350 yd3 (270 m3)

**Application** 

Shotcrete for below grade walls

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### MasterLife® 300D

# Crystalline Capillary Waterproofing Admixture

**Project** 

Spring Street Salt Shed

Location

Manhattan, NY

Owner

City of New York

**Design Engineer** 

**Dattner Architects** 

Contractor

Oliveira Contracting, Inc.

**Concrete Producer** 

NYCON Supply Corp.

Volume

5,000 yd3 (3,825 m3)

**Application** 

**Architectural Walls** 

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Beverly Gardens Park -Lily Pond Restoration

Location

Beverly Hills, CA

Owner

City of Beverly Hills

**Design Engineer** 

Mia Lehrer + Associates

Contractor

**Matt Construction** Corporation

**Concrete Producer** 

Cemex

Volume

600 yd3 (450 m3)

**Application** 

Slab-on-ground (concrete) and walls (shotcrete)

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Chambersburg Wastewater Treatment Plant Upgrades

Location

Chambersburg, PA

**Owner** 

Borough of Chambersburg

**Design Engineer AECOM** 

Contractor

Michael F Ronca & Sons, Inc.

**Concrete Producer** 

Valley Quarries, Inc.

Volume

8,600 yd3 (6,575 m3)

**Application** 

**New Tanks** 

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### MasterLife® 300D

### Crystalline Capillary Waterproofing Admixture

**Project** 

"The Durant" Apartments

Location Berkeley, CA

**Owner** 

Austin Group LLC, Alamo, CA

**Design Engineer** 

Humann Company, Inc., Lafayette, CA

Contractor

**Brown Construction** 

**Concrete Producer** Central Concrete

Volume 750 yd3 (570 m3)

**Application** 

Slab-on-Ground (Concrete)/ Walls & Elevator pits (Shotcrete)

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

#### **Project**

Everglades Agricultural Area A-1 Flow Equalization Basin

#### Location

West Palm Beach, FL

#### **Owner**

South Florida Water Management District

### **Design Engineer**

**WRS Compass** 

#### Contractor

Central Florida Equipment

#### **Concrete Producer**

Central Florida Equipment

#### Volume

14,000 yd3 (10,700 m3)

#### **Application**

Water Inflow/ **Outflow Structures** 

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### MasterLife® 300D

### Crystalline Capillary Waterproofing Admixture

**Project** 

Facebook West Campus

Location

Menlo Park, CA

**Owner** 

Facebook, Inc.

Architect

Gehry Partners, LLP

**General Contractor** 

Level 10 Construction

**Structural Engineer** 

Forell/Elsesser Engineers

**Concrete Subcontractor** 

Joseph J Albanese, Inc.

**Concrete Supplier** 

Central Concrete Supply Co., Inc.

Volume

9,200 yd3 (7,030 m3)

**Application** 

Concrete Decks & Elevator Pits

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Pocahontas Regional Sewer District (Contract 1)

Location Slaty Fork, WV

Pocahontas County, WV

**Design Engineer** 

Waste Water Management, Fairfax, VA

Contractor Pipe Plus

**Concrete Producer** 

Foster Supply

Volume 150 yd<sup>3</sup> (115 m<sup>3</sup>)

**Application** 

Precast manholes

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

**New Water Treatment Plant** 

Location

Greensburg, KY

Owner

City of Greensburg

**Design Engineer** 

Bell Engineering

Contractor

Smith Contractors, Inc.

**Concrete Producer** 

Irving Materials, Inc.

Volume

5,000 yd3 (3,820 m3)

**Application** 

Walls and slabs

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

**IMT Riverside Apartments** 

Location

Sherman Oaks, CA

Owner

**IMT** Residential

**Design Engineer** 

Masoud Dejban Engineering, Inc.

Contractor

IMT Residential

**Concrete Producer** 

Catalina Pacific Ready Mix

Volume

3,500 yd3 (2,675 m3)

**Application** 

Parking deck floor and walls

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

#### **Project**

Pennsylvania Turnpike Jersey Barriers

#### Location

Pennsylvania

#### Owner

Pennsylvania Turnpike Commission

#### **Design Engineer**

Various

#### Contractor

Various

#### **Concrete Producer**

**Faddis Concrete Products** 

#### Volume

Over 20,000 yd3 (15,300 m<sup>3</sup>)

#### **Application**

Permanent Precast Jersey Barriers

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Lorenzi Park Renovations

Location

Las Vegas, NV

Owner

City of Las Vegas

**Engineer** 

T.B.Penick & Sons, Inc.

Contractor

T.B.Penick & Sons, Inc.

**Concrete Producer** 

Nevada Ready Mix

Volume

105 yd3 (80 m3)

**Application** 

Splash pad embedded with colored glass pieces

for water feature

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## Crystalline Capillary Waterproofing Admixture

**Project** 

Oakland Macomb Interceptor Drain

Location

Oakland and Macomb Counties, MI

**Owner** 

**OMID** Drainage Board

**Design Engineer** 

**NTH Consultants** 

Contractor

Colisanti Construction Jay Dee Contractors

**Concrete Producer** 

McCoig Industries Superior Materials, Inc. Volume

8,000 yd3 (6,100 m3)

**Application** 

Drain, Tunnel

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

**Orange County Water** Filtration Oxidation Plant

Location

Fountain Valley, CA

**Owner** 

**Orange County** Sanitation District **Design Engineer** 

Herbert Rowland & Grubic, Inc.

Contractor

WM Lyles

**Concrete Producer** 

Holliday Rock

Volume

6,000 yd3 (4,600 m3)

**Application** 

Tanks

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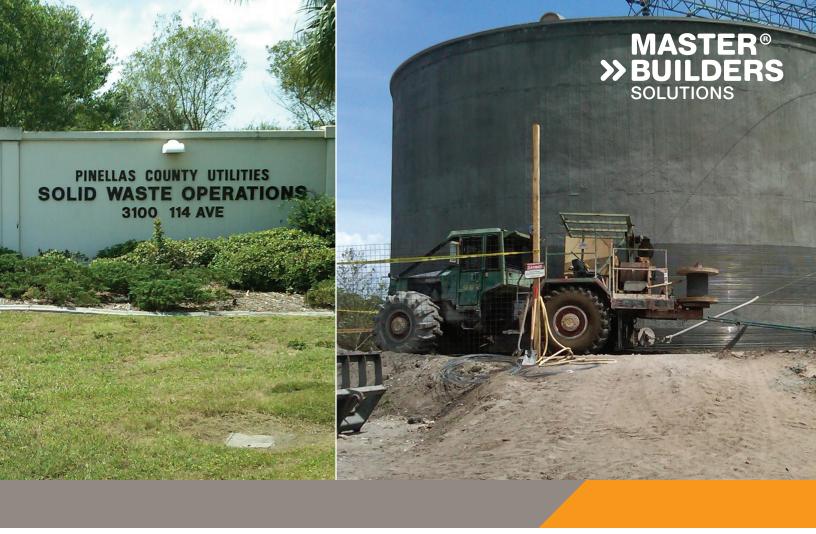




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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Pinellas County WTE Facility

Location

Saint Petersburg, FL

Owner

Pinellas County Department of Environment and Infrastructure **Engineer** 

AECOM Technical Services, Inc.

Contractor

Ortega Industrial Contractors

**Concrete Producer** 

**Vulcan Materials Company** 

Volume

650 yd3 (500 m3)

**Application** 

Water tank

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Sierra Madre Middle School

Location

Sierra Madre, CA

Owner

Pasadena Unified School District

Architect

**PBWS Architects** 

Contractor

General:

Sinanian Development, Inc.

Concrete:

Santa Clarita Concrete

**Concrete Producer** 

Holliday Rock

Volume

800 yd<sup>3</sup> (600 m<sup>3</sup>)

**Applications** 

Slab-on-Ground

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Weymouth Oxidation Facilities

Location

Los Angeles, CA

Owner

Metropolitan Water District of Southern California

**Design Engineer** 

Carollo Engineers

Contractor

Holliday Rock

**Concrete Producer** Archer Western

Volume

18,000 yd3 (13,760 m3)

**Application** 

Slab-on-Ground, Walls, Tanks

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### MasterLife® 300D

## Crystalline Capillary Waterproofing Admixture

**Project** 

Water Treatment Plant

Location

White City, SK, Canada

Owner

Town of White City, SK, Canada

**Design Engineer** 

**AECOM** 

Contractor

**PCL Construction** 

**Concrete Producer** 

Lafarge Canada, Inc.

Volume

1,300 yd3 (1,000 m3)

**Application** 

Slab-on-ground, Walls, Reservoir

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## **Castlen Fertilizer Storage Facility**

#### **Featured Product**

MasterLife 300L

#### **Project Key Points**

- Time and labor savings not having to handle the product multiple times
- Enhanced production safety with not having to manually add the product to the trucks
- Product addition transparency with a batch ticket printout
- No effect on slump, air content, setting time, workability, or finishability - easy to place



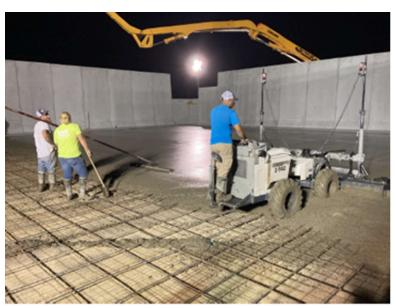
**Location** Owensboro, KY

**Contractor**NBR Concrete Construction

Concrete Producer IMI Concrete

**Concrete Volume** 1,500 yd<sup>3</sup> (1,150 m<sup>3</sup>)





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## **Garage Floor**

#### Featured Product

MasterLife 300L

### **Project Key Points**

- The mixture contained MasterLife CRA 007 and MasterFiber MAC 360 FF additives for crack control
- The concrete screeded nicely and finished really well; it sealed up with one pass of the float

### **Project Data**

**Location** Spokane, WA

**Contractor** Todd Ferger

Concrete Producer CDA Redi Mix and Precast Inc.

Concrete Volume 10 yd<sup>3</sup> (8 m<sup>3</sup>)





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Tel: 800 628-9990

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Master Builders Solutions Canada, Inc.



## **Utility Precast Elements**

#### Featured Products

MasterLife 300L

MasterColor

#### **Project Key Points**

- High quality precast concrete
- Liquid integral crystalline waterproofing treatment of elements
- Faster, more precise and accurate batching process compared to powder products
- Visual recording on batch reports ensures engineers and project owners that products are properly protected

#### **Project Data**

Location Holden, LA

**Concrete Producer**Gainey's Concrete Products Inc.





admixtures@masterbuilders.com

www.master-builders-solutions.com/en-us



Master Builders Solutions Canada, Inc.



# **Rocky Mountain Labs**

#### Featured Product

MasterLife 300L

#### **Project Key Points**

- Concrete waterproofing desired in the slab application
- Concrete was easy to pump, place, and finish

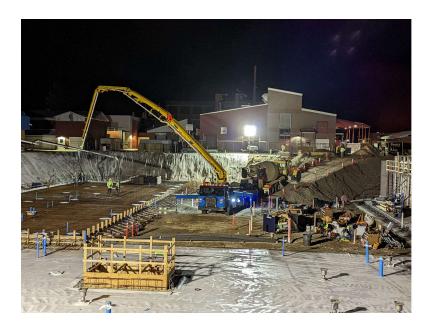
#### **Project Data**

**Location** Hamilton, MT

**Contractor**Jackson Contractors

Concrete Producer Donaldson Bros Ready Mix

Concrete Volume 2,700 yd<sup>3</sup> (2,060 m<sup>3</sup>)





admixtures@masterbuilders.com

Tel: 800 628-9990

www.master-builders-solutions.com/en-us



#### LIMITED WARRANTY CONCERNING INTEGRAL WATERPROOFING MATERIALS

PURCHASER:	
PROJECT:	
DATE OF SUBSTANTIAL COMPLETION:	

Subject to the limitations, conditions and exceptions set forth below, Master Builders Solutions US LLC—Admixture Systems (hereinafter, "MBS") hereby warrants that (i) the MBS product purchased or acquired in conjunction with the provision of this warranty (hereinafter, the "Product"), shall be free from manufacturing defects at the time of sale, and (ii) the finished concrete properly incorporating the Product shall be integrally waterproof for a period of 10 years from the Completion Date (as set forth above). For purposes of this limited warranty, "integrally waterproof" means that the concrete incorporating the Product shall be free from visible water leakage through the finished concrete incorporating the Product. This limited warranty is given upon the express condition that purchaser, owner, owner's architect, design engineers, contractors, subcontractors, employees, representatives, and agents all fully comply with (a) all project specifications, industry standards and generally accepted construction practices, and (b) all instructions, specifications, limitations, restrictions and requirements provided or made available by MBS with respect to the use, storage and application of the Product.

This limited warranty does not cover damage resulting from the leakage of water through joints or cracks (both macro and micro) caused by shrinkage, structural or design failure, any subsequent damage to the concrete incorporating the Product, or any other cause not expressly attributable to a failure of the Product. No warranty whatsoever is made with respect to any materials that are not manufactured by MBS. Further, this warranty is void if the Product is intermixed with any other chemicals or materials not specifically required or authorized by MBS' specifications or instructions pertaining to the Product.

This limited warranty does not extend to, and MBS shall have no liability for, any damage or apparent failure of the Product caused in whole or in part by (i) falling objects, vibrations, structural movement, civil disturbances or acts of God or other natural phenomena such as, without limitation, abnormal or severe weather conditions, fire, landslides, earthquakes or flooding, (ii) architectural, design, engineering or construction errors, omissions or deficiencies, (iii) any defect or nonconformity in the concrete (or the formulation thereof) into which the Product is incorporated, (iv) any design or construction components which fail to comply with applicable building codes or standards, (v) negligent, or defective workmanship by any person with respect to incorporation of the Product into the subject concrete or the formation of the concrete structure itself, (vi) Product defects arising from improper storage or contamination of the Product after it has been shipped to the purchaser of the Product, or (vii) any negligent, reckless or intentional actions or omissions on the part of the purchaser, the owner or any third party which cause damage to, or adversely impact on the effectiveness of, the Product. Under no circumstances will MBS be liable or responsible for any damage or injury not solely and directly caused by Product defects as described in this limited warranty.

(CONTINUED ON BACK)

MBS shall have no obligation under this warranty, and MBS' obligations under this unless, (i) within 30 days of the time the alleged Product defect was discovered (or reasonably should have been discovered, whichever is earlier), the owner provides a written notice to MBS describing in detail the alleged defect(s) and the damages allegedly caused thereby, and (ii) MBS is given a reasonable period of time (to be determined by MBS, but not less than 60 days) to inspect and perform testing on the Product and the concrete into which the Product was incorporated to investigate the claim and to determine the cause of the damage or alleged defect.

In the event the Product is proven to be defective, the sole responsibility and liability of MBS under this limited warranty shall be, at MBS' election, either to provide replacement Product for that portion of the Product determined to be defective or to repair the damaged portion of the concrete in which the defective Product is incorporated. Under no circumstances shall MBS' obligations under this limited warranty exceed the original cost of the Product to the direct purchaser, nor shall any repair or replacement of the Product extend the term of this warranty beyond the original warranty term set forth above.

This limited warranty may not be transferred or assigned without MBS' prior written approval, which may be withheld in MBS' sole and absolute discretion. Such transfer or assignment shall not extend the term of this warranty beyond the original warranty term set forth above. This warranty shall be interpreted under the laws of the State of Ohio.

Any notice of damage shall be sent to MBS by certified mail, return receipt requested, to MBS at the following address: Master Builders Solutions US LLC — Admixture Systems, Attn: Technical Services Department, 23700 Chagrin Boulevard, Beachwood, Ohio 44122.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. MBS SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, DAMAGES FOR DELAY, INCONVENIENCE, OR DAMAGE TO ANY ANCILLARY STRUCTURE OR PROPERTY. MBS shall have no further obligation or liability of any kind regardless of the theory of liability, whether arising in contract, tort or strict liability. MBS' sales personnel, its distributors and any third parties are not authorized or permitted to make any representations or warranties concerning the Product on behalf of MBS, and the owner shall not rely on any such **ENTIRE** representations or warranties. THE WARRANTY **PROVIDED** BY**MBS** IN CONNECTION WITH THE PRODUCT IS EMBODIED IN THIS LIMITED WARRANTY STATEMENT. AND NO OTHER WARRANTIES ARE GIVEN BEYOND THOSE SET FORTH IN THIS LIMITED WARRANTY STATEMENT. This writing constitutes a complete and exclusive statement of the terms of the warranty and supersedes all prior agreements, warranties, or statements regarding the Product. This limited warranty shall be ineffective unless and until all bills and invoices for the Product have been paid. Any Product subject to this warranty must have been purchased or acquired through an authorized MBS representative or distributor.

Notwithstanding the foregoing terms, conditions, exceptions and limitations, in the event the Product is determined to be a "consumer product," as defined by the Magnuson-Moss Warranty Act (and regulations promulgated thereunder), the following additional terms, conditions and disclosures will apply to you as the owner: (i) this limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state; and (ii) some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.