

CLASSIFICATION: 09 30 00

PRODUCT DESCRIPTION: ?IDEAL FOR LARGE FORMAT PORCELAIN TILE INSTALLATIONS IN THE MOST DEMANDING ENVIRONMENTS. ARDEX X 77 IS A SMOOTH, CREAMY AND EASY TO TROWEL POLYMER-MODIFIED MORTAR FORMULATED WITH MICROTEC® TECHNOLOGY WITH OUTSTANDING STRENGTH, FLEXIBILITY AND SAG RESISTANCE. ARDEX X 77 IS PERFECT SOLUTION FOR THE MOST DIFFICULT INSTALLATIONS IN ANY ENVIRONMENT INCLUDING LARGE FORMAT THIN TILE INSTALLATIONS. THE WORLD'S MOST ADVANCED TILING MORTAR! •TRUE 60-MINUTE OPEN TIME •UNMATCHED SAG RESISTANCE •UNIQUE CREAMY CONSISTENCY; EXTREMELY EASY TO APPLY •IDEAL FOR HIGH TRAFFIC AREAS AND EXTERIOR FACADES •POT LIFE: 3 HOURS •40LB. (18 KG) AND 20LB. (9 KG)? BAG; GRAY AND WHITE •OUTSTANDING COVERAGE: 110 SQ. FT. (10.2 M²)

 **Section 1: Summary**

**CONTENT INVENTORY**

- Threshold per material
- 100 ppm
  - 1,000 ppm
  - Per GHS SDS
  - Per OSHA MSDS
  - Other

Residuals and impurities considered in 7 of 7 materials  
 see Section 2: Material Notes  
 see Section 5: General Notes

Based on the selected Content Inventory Threshold:

Characterized.....	<input type="radio"/>	<input checked="" type="radio"/>
Are the Percent Weight and Role provided for all substances?	Yes	No
Screened.....	<input checked="" type="radio"/>	<input type="radio"/>
Are all substances screened using Priority Hazard Lists with results disclosed?	Yes	No
Identified.....	<input checked="" type="radio"/>	<input type="radio"/>
Are all substances disclosed by Name (Specific or Generic) and Identifier?	Yes	No

**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.

Number of Greenscreen BM-4/BM3 contents..... 0  
 Contents highest concern GreenScreen Benchmark or List translator Score..... LT-1  
 Nanomaterial..... No

**MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY GREENSCREEN SCORE | HAZARD TYPE**

PORTLAND CEMENT [ PORTLAND CEMENT **LT-UNK** | CAN ] SAND [ QUARTZ **LT-1** | CAN ] LIMESTONE [ LIMESTONE; CALCIUM CARBONATE **LT-UNK** QUARTZ **LT-1** | CAN ] VINYL ACETATE COPOLYMER [ ETHYLENE VINYL ACETATE POLYMER (EVA) **LT-UNK** ] CALCIUM SULFATE [ CALCIUM SULFATE, 1\_2-HYDRATE, POWDER **LT-UNK** ] AMORPHOUS FUMED SILICA [ SILICA FUME **LT-UNK** ] CALCIUM FORMATE [ CALCIUM DIFORMATE **LT-UNK** ]

**INVENTORY AND SCREENING NOTES:**

**VOLATILE ORGANIC COMPOUND (VOC) CONTENT**

VOC Content data is not applicable for this product category.

**CERTIFICATIONS AND COMPLIANCE**

LCA: Environmental Product Declaration

See Section 3 for additional listings.

<input checked="" type="radio"/> Self-Published*	VERIFIER:	SCREENING DATE: January 6, 2017	EXPIRY DATE*: January 18, 2020
<input type="radio"/> Third Party Verified	VERIFICATION #:	RELEASE DATE: January 18, 2017	* or within 3 months of significant change in product contents
*See HPDC website for details			



## Section 2: Content in Descending Order of Quantity

This section lists materials in a product and the substances in each material based on the Inventory Threshold for each material. If residuals or impurities from the manufacturing or extraction processes are considered for a material, these are inventoried and characterized to the extent described in the Material and/or General Notes. Chemical substances are screened against the HPD Priority Hazard Lists for human and environmental health impacts. Screening is based on best available information; "Not Found" does not necessarily mean there is no potential hazard associated with the product or its contents. More information about Priority Hazard Lists and the GreenScreen can be found online: [www.hpd-collaborative.org](http://www.hpd-collaborative.org) and [www.greenscreenchemicals.org](http://www.greenscreenchemicals.org).

### PORTLAND CEMENT

%: 30.0000 - 60.0000

HPD URL:

Inventory Threshold: Per GHS SDS

Residuals Considered: Yes

Material Notes: The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

#### PORTLAND CEMENT

ID: 65997-15-1

%: 100.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Binder

#### HAZARDS:

#### AGENCY(IES) WITH WARNINGS:

CANCER

MAK

Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES:

### SAND

%: 30.0000 - 60.0000

HPD URL:

Inventory Threshold: Per GHS SDS

Residuals Considered: Yes

Material Notes: The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

#### QUARTZ

ID: 14808-60-7

%:

GS: LT-1

RC: None

NANO: NO

ROLE:

#### HAZARDS:

#### AGENCY(IES) WITH WARNINGS:

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

SUBSTANCE NOTES:

### LIMESTONE

%: 1.0000 - 5.0000 HPD URL:

Inventory Threshold: Per GHS SDS

Residuals Considered: Yes

Material Notes:

**LIMESTONE; CALCIUM CARBONATE**

ID: 1317-65-3

%: 99.9000 - 100.0000    GS: LT-UNK    RC: None    NANO: NO    ROLE: Filler

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

**QUARTZ**

ID: 14808-60-7

%: Impurity/Residual    GS: LT-1    RC: None    NANO: NO    ROLE: Impurity/Residual

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

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

SUBSTANCE NOTES: Crystalline silica (Quartz) is not intentionally added in this ingredient, but is a naturally occurring component in limestone (Calcium Carbonate).

**VINYL ACETATE COPOLYMER**    %: 1.0000 - 5.0000    HPD URL:

Inventory Threshold: Per GHS SDS    Residuals Considered: Yes

Material Notes:

**ETHYLENE VINYL ACETATE POLYMER (EVA)**

ID: 24937-78-8

%: 100.0000    GS: LT-UNK    RC: None    NANO: NO    ROLE: Modifier

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

**CALCIUM SULFATE**    %: 1.0000 - 5.0000    HPD URL:

Inventory Threshold: Per GHS SDS    Residuals Considered: Yes

Material Notes:

CALCIUM SULFATE, 1\_2-HYDRATE, POWDER

ID: 7778-18-9

#: 100.0000

GS: LT-UNK

RC: None

NANO: NO

ROLE: Binder

HAZARDS:

None Found

AGENCY(IES) WITH WARNINGS:

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

AMORPHOUS FUMED SILICA %: 1.0000 - 5.0000 HPD URL:

Inventory Threshold: Per GHS SDS Residuals Considered: Yes

Material Notes:

SILICA FUME

ID: 69012-64-2

#:

GS: LT-UNK

RC: None

NANO: NO

ROLE:

HAZARDS:

None Found

AGENCY(IES) WITH WARNINGS:

No warnings found on HPD Priority lists

SUBSTANCE NOTES:

CALCIUM FORMATE %: 1.0000 - 5.0000 HPD URL:

Inventory Threshold: Per GHS SDS Residuals Considered: Yes

Material Notes:

CALCIUM DIFORMATE

ID: 544-17-2

#:

GS: LT-UNK

RC: None

NANO: NO

ROLE:

HAZARDS:

None Found

AGENCY(IES) WITH WARNINGS:

No warnings found on HPD Priority lists

SUBSTANCE NOTES:



### 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.

LCA

Environmental Product Declaration

CERTIFYING PARTY: Third Party

APPLICABLE FACILITIES: All ARDEX manufacturing facilities.

CERTIFICATE URL: <http://www.tcnatile.com/images/pdfs/EPDs/EPD-for-Cement-Mortar-Made-in-North-America.pdf>

CERTIFICATION AND COMPLIANCE NOTES: Environmental Product Declaration (EPD) - Cement Mortar for Tile Installation, provided by the Tile Council of North America (TCNA) and prepared in accordance with ISO 14025 by UL Environment. The EPD provides information on environmental impacts of products over their life cycle.

ISSUE  
DATE:  
2016-09-  
30

EXPIRY  
DATE:  
2021-09-30

CERTIFIER OR  
LAB: Underwriters  
Laboratories

## 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.

### **CLEAN WATER**

**HPD URL: No HPD link provided**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Mix ARDEX X 77 with clean water in accordance with the technical data sheet.

## Section 5: General Notes



## MANUFACTURER INFORMATION

MANUFACTURER: ARDEX Engineered Cements

CONTACT NAME: Steven Newbrough

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Aliquippa, PA 15001  
USA

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## KEY

**OSHA MSDS** Occupational Safety and Health Administration Material Safety Data Sheet

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

### Hazard Types

**AQU** Aquatic toxicity

**GLO** Global warming

**PHY** Physical Hazard (reactive)

**CAN** Cancer

**MAM** Mammalian/systemic/organ toxicity

**REP** Reproductive toxicity

**DEV** Developmental toxicity

**MUL** Multiple hazards

**RES** Respiratory sensitization

**END** Endocrine activity

**NEU** Neurotoxicity

**SKI** Skin sensitization/irritation/corrosivity

**EYE** Eye irritation/corrosivity

**OZO** Ozone depletion

**LAN** Land Toxicity

**GEN** Gene mutation

**PBT** Persistent Bioaccumulative Toxic

**NF** Not found on Priority Hazard Lists

### GreenScreen (GS)

**BM-4** Benchmark 4 (prefer-safer chemical)

**LT-P1** List Translator Possible Benchmark 1

**BM-3** Benchmark 3 (use but still opportunity for improvement) BM-2  
Benchmark 2 (use but search for safer substitutes)

**LT-1** List Translator Likely Benchmark 1

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

**LT-UNK** List Translator Benchmark Unknown (insufficient  
information from List Translator lists to benchmark)

**BM-U** Benchmark Unspecified (insufficient data to benchmark)

**UNK** Unknown (no data on List Translator Lists)

### Recycled Types

**PreC** Preconsumer (Post-Industrial)

**PostC** Postconsumer

**Both** Both Preconsumer and Postconsumer

**Unk** Inclusion of recycled content is unknown

**None** Does not include recycled content

### Other

**Nano** Composed of nanoscale particles or nanotechnology

### Declaration Level

**Self-declared** Manufacturer's self-declaration (First Party)

**Independent Lab** Manufacturer's self-declaration using results from an independent lab

**Second Party** Verification by trade association or other interested party

**Third Party** Verification by independent certifier

**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 does not provide an assessment of health impacts throughout the product life cycle. It does not provide an assessment of exposure or risk associated with product handling or use. It also does not address potential health impacts of: (i) substances used or created during the manufacturing process unless they remain in the final product, or (ii) substances created after the product is delivered for end use (e.g., if the product burns, degrades, or otherwise changes chemical composition).

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

A disclosure completed in compliance with the HPD Open Standard is referred to as a "Health Product Declaration," or "HPD." 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 Open Standard noted.