Section 1: Summary

Basic Method / Product Threshold

Content Inventory

Inventory Reporting Format
- Nested Materials Method
- Basic Method

Threshold Disclosed Per
- Material
- Product

 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

ARMSTRONG COMMERCIAL TECTUM I ROOF DECK | AMERICAN ASPEN (AMERICAN ASPEN) | NoGS | MAGNESIUM OXIDE (MAGNESIUM OXIDE) | LT-UNK | CAN SODIUM SILICATE (SODIUM SILICATE) | LT-P | END MAGNESIUM SULFATE, ANHYDROUS (MAGNESIUM SULFATE, ANHYDROUS) | LT-UNK | CALCIUM CARBONATE (CALCIUM CARBONATE) | BM-3 | UREA (UREA) | LT-UNK | QUARTZ (QUARTZ) | LT-1 | CAN TITANIUM DIOXIDE (TITANIUM DIOXIDE) | LT-1 | CAN | END SILICA, CHRISTOBALITE (SILICA, CHRISTOBALITE) | LT-1 | CAN TALC (TALC) | BM-1 | CAN

Volatile Organic Compound (VOC) Content

VOC Content data is not applicable for this product category.

Certifications and Compliance

Material content migration: ILFI Declare - Red List Free - Third Party Verified
LCA: Environmental Product Declaration (EPD) by UL - Industry Generic

Consistency with Other Programs

No pre-checks completed or disclosed

Preparer: Self-Prepared
Verifier:
Verification #: 

Screening Date: 2017-10-09
Published Date: 2017-11-09
Expiry Date: 2020-10-09
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 2.1, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-standard](http://www.hpd-collaborative.org/hpd-2-1-standard)

### ARMSTRONG COMMERCIAL TECTUM I ROOF DECK

**PRODUCT THRESHOLD:** 1000 ppm  
**RESIDUALS AND IMPURITIES CONSIDERED:** Yes

**RESIDUALS AND IMPURITIES NOTES:** Residuals/impurities in select raw materials are quantitatively measured, and are displayed in the HPD when greater than 1000ppm.

**OTHER PRODUCT NOTES:** None

#### AMERICAN ASPEN (AMERICAN ASPEN)

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>85.0000 - 95.0000</td>
<td>NoGS</td>
<td>None</td>
<td>No</td>
<td>Wood fiber base</td>
</tr>
</tbody>
</table>

**HAZARDS:**  
**AGENCY(IES) WITH WARNINGS:**

None Found

**SUBSTANCE NOTES:** Wood fiber from American Aspen trees.

#### MAGNESIUM OXIDE (MAGNESIUM OXIDE)

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.0000 - 25.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Binder</td>
</tr>
</tbody>
</table>

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

CANCER

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

**SUBSTANCE NOTES:** None

#### SODIUM SILICATE (SODIUM SILICATE)

<table>
<thead>
<tr>
<th>%</th>
<th>GS</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0000 - 20.0000</td>
<td>LT-P1</td>
<td>None</td>
<td>No</td>
<td>Binder</td>
</tr>
</tbody>
</table>

**HAZARDS:**

**AGENCY(IES) WITH WARNINGS:**

ENDOCRINE

TEDX - Potential Endocrine Disruptors  
Potential Endocrine Disruptor

**SUBSTANCE NOTES:** Sodium Silicate is bound within the substrate. It is not in a form that is noted as a hazard above.
### Magnesium Sulfate, Anhydrous

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0000 - 9.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Board</td>
</tr>
</tbody>
</table>

**Hazards:** None Found

No warnings found on HPD Priority lists

**Substance Notes:** None

### Calcium Carbonate

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0000 - 8.0000</td>
<td>BM-3</td>
<td>None</td>
<td>No</td>
<td>Board and Coating</td>
</tr>
</tbody>
</table>

**Hazards:** None Found

No warnings found on HPD Priority lists

**Substance Notes:** None

### Urea

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5000 - 5.0000</td>
<td>LT-UNK</td>
<td>None</td>
<td>No</td>
<td>Board</td>
</tr>
</tbody>
</table>

**Hazards:** None Found

No warnings found on HPD Priority lists

**Substance Notes:** None

### Quartz

<table>
<thead>
<tr>
<th>%</th>
<th>GB</th>
<th>RC</th>
<th>NANO</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1000 - 1.0000</td>
<td>LT-1</td>
<td>None</td>
<td>No</td>
<td>Coating</td>
</tr>
</tbody>
</table>

**Hazards:**

- **Cancer**
  - US CDC - Occupational Carcinogens: Occupational Carcinogen
  - CA EPA - Prop 65: Carcinogen - specific to chemical form or exposure route
  - IARC: Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources
  - US NIH - Report on Carcinogens: Known to be Human Carcinogen (respirable size - occupational setting)
  - MAK: Carcinogen Group 1 - Substances that cause cancer in man
  - New Zealand - GHS: 6.7A - Known or presumed human carcinogens
  - Australia - GHS: H350 - May cause cancer

**Substance Notes:** Quartz is bound within the coating. It is not in respirable form in the final installed product.
### TITANIUM DIOXIDE (TITANIUM DIOXIDE)

**ID:** 13463-67-7  
**%:** 0.1000 - 0.5000  
**GS:** LT-1  
**RC:** None  
**NANO:** No  
**ROLE:** Pigment

**HAZARDS:**  
**AGENCY(ES) WITH WARNINGS:**  
- **CANCER**  
  - US CDC - Occupational Carcinogens: Occupational Carcinogen  
  - CA EPA - Prop 65: Carcinogen - specific to chemical form or exposure route  
  - IARC: Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources  
- **ENDOCRINE**  
  - TEDX - Potential Endocrine Disruptors: Potential Endocrine Disruptor  
- **CANCER**  
  - MAK: Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value

**SUBSTANCE NOTES:** Pigment only in painted white roof deck.

### SILICA, CHRISTOBALITE (SILICA, CHRISTOBALITE)

**ID:** 14464-46-1  
**%:** 0.1000 - 0.2000  
**GS:** LT-1  
**RC:** None  
**NANO:** No  
**ROLE:** Coating

**HAZARDS:**  
**AGENCY(ES) WITH WARNINGS:**  
- **CANCER**  
  - US CDC - Occupational Carcinogens: Occupational Carcinogen  
  - CA EPA - Prop 65: Carcinogen - specific to chemical form or exposure route  
  - IARC: Group 1 - Agent is carcinogenic to humans - inhaled from occupational sources  
  - US NIH - Report on Carcinogens: Known to be Human Carcinogen (respirable size - occupational setting)  
  - MAK: Carcinogen Group 1 - Substances that cause cancer in man  
  - New Zealand - GHS: 6.7A - Known or presumed human carcinogens  
  - Japan - GHS: Carcinogenicity - Category 1A  
  - Australia - GHS: H350 - May cause cancer

**SUBSTANCE NOTES:** Silica is bound within the coating and not inhalable, it is excluded from regulatory hazard lists. It is not in a respirable form in the final product.

### TALC (TALC)

**ID:** 14807-96-6  
**%:** 0.0100 - 1.0000  
**GS:** BM-1  
**RC:** None  
**NANO:** No  
**ROLE:** Coating

**HAZARDS:**  
**AGENCY(ES) WITH WARNINGS:**  
- **CANCER**  
  - MAK: Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification
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.

**MATERIAL CONTENT MIGRATION**

**ILFI Declare - Red List Free - Third Party Verified**

- **CERTIFYING PARTY:** Second Party
- **APPLICABLE FACILITIES:** all
- **CERTIFICATE URL:** https://armstronbuildingsolutions.com/tectum
- **CERTIFICATION AND COMPLIANCE NOTES:** Red List Free

- **CERTIFYING PARTY:** Third Party
- **APPLICABLE FACILITIES:** all
- **CERTIFICATE URL:** https://armstrongbuildingproducts.com/tectum
- **CERTIFICATION AND COMPLIANCE NOTES:** Product Specific

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

This HPD is provided for the intended recipient in connection with its assessment of products. In providing information, AWI expresses no opinion to its applicability, suitability, or completeness of the declaration form or the standards and criteria utilized or referenced therein. Information provided herein is qualified in the entirety by reference to the product Safety Data Sheet (SDS) which can be located at www.armstronbuildingsolutions.com/tectum. Visit www.armstronbuildingsolutions.com/tectum for more information on this product.

Section 6: References

Armstrong Commercial Tectum I Roof Deck
hpdrepository.hpd-collaborative.org
MANUFACTURER INFORMATION

MANUFACTURER: Armstrong World Industries
ADDRESS: 2500 Columbia Avenue
Lancaster PA 17603, USA
WEBSITE: www.armstrongbuildingsolutions.com/tectum

CONTACT NAME: Armstrong Technical Services
TITLE: Technline
PHONE: 1-877-276-7876
EMAIL: techline@armstrongbuildingsolutions.com

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
- CAN: Cancer
- DEV: Developmental toxicity
- END: Endocrine activity
- EYE: Eye irritation/corrosivity
- GEN: Gene mutation
- GLO: Global warming
- MAM: Mammalian/systemic/organ toxicity
- MUL: Multiple hazards
- NEU: Neurotoxicity
- OZO: Ozone depletion
- PBT: Persistent Bioaccumulative Toxic
- PHY: Physical Hazard (reactive)
- REP: Reproductive toxicity
- RES: Respiratory sensitization
- SKI: Skin sensitization/irritation/corrosivity
- LAN: Land Toxicity
- NF: Not found on Priority Hazard Lists

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 (insufficient data to benchmark)
- LT-P1: List Translator Possible Benchmark 1
- LT-1: List Translator Likely Benchmark 1
- LT-UNK: List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
- NoGS: 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 Terms

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.