



## LEED v4 Material Resources (MR)

### MRc4 Building Product Disclosure and Optimization - Material Ingredients

#### AEP Span Products

Box Rib™/Reversed Box Rib	Curved Span-Lok™
C 1.4-32 (CF 1 3/8")	Span-Lok™ hp
CP 32	SpanSeam™
Design Span® hp	Select Seam® Narrow Batten
Flex Series	Select Seam® Wide Batten
Flush Panel	Super-Span®/Reversed Super-Span
HR-36®/Reversed HR-36	TW-12
Mini-V-Beam™	U-Panel
Nu-Wave® Corrugated	X-Span®
Prestige Series®	

#### Applicable Credits:

#### MRc4.1 Building Product Disclosure and Optimization – Material Ingredients (1 point)

**OPTION 1. Material Ingredients Reporting (1pt):** AEP Span products with a ZINCALUME® Plus coating have a third-party verified published, complete Health Product Declaration (HPD) with full disclosure of known hazards to at least 0.01% (100 parts per million) in compliance with the Health Product Declaration Open Standard v2.1.

#### Notable Reference:

**(Option 1)** This credit rewards projects who install at least 20 products from at least 5 different manufacturers that have published chemical inventories of products to at least 0.1% (1000 parts per million) using one of the approved reporting frameworks, including the HPD.

*AEP Span has a third-party verified HPD with full disclosure of known hazards to at least 0.01% (100 ppm) for its portfolio of products with a ZINCALUME® Plus coating, which offers a bare steel aesthetic design with proven corrosion protection and key energy efficiency attributes for building envelopes.*

**SCS Global Services** does hereby certify that an independent assessment has been conducted on behalf of:

# ASC Profiles LLC

2110 Enterprise Boulevard, West Sacramento, CA, United States

For the following product(s):

## **Metal Panels/Sheets:**

**AEP Span Products with ZINCALUME Plus Substrate**

*HPD Publish Date: December 14, 2017*

*HPD Screening Date: November 13, 2017*



The product(s) meet(s) all of the necessary qualifications to be certified for the following claim(s):

### **Environmental Claims Validation - Health Hazard Disclosure**

This validation conforms to the **Health Product Declaration Open Standard, Version 2.1 (May 1, 2017)**. Products have a complete, nested, material threshold HPD and have been validated for health hazard warnings with full disclosure at an inventory threshold of 100 ppm (0.01%).

Registration # SCS-ECV-04787

Valid from: December 14, 2017 to November 13, 2020



A handwritten signature in black ink that reads "Stanley Mathuram".

Stanley Mathuram, PE, Vice President  
SCS Global Services  
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

# AEP Span Products with ZINCALUME® Plus Substrate by ASC Profiles

# Health Product Declaration v2.1

CLASSIFICATION: 07 41 13 / 07 42 13 / 07 61 00 / 07 62 00 / 07 63 00 / 07 64 00

created via: HPDC Online Builder

PRODUCT DESCRIPTION: Unpainted AEP Span Profiles with a ZINCALUME® (Galvalume®) substrate. AEP Span manufactures roof and siding profiles using roll forming, press break and folder operations. The manufacturing process forms coiled steel into various product shapes but does not alter the material ingredient composition of the product. As a result the underlying substrate determines the contents of the product subject to screening.

## Section 1: Summary

## Nested Method / Material Threshold

### CONTENT INVENTORY

#### Inventory Reporting Format

- Nested Materials Method
- Basic Method

#### Threshold Disclosed Per

- Material
- Product

#### Threshold level

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

#### Residuals/Impurities

Residuals/Impurities Considered in 1 of 2 Materials

Explanation(s) provided for Residuals/Impurities?

- Yes
- No

Are All Substances Above the Threshold Indicated:

**Characterized**  
Percent Weight and Role Provided?  Yes  No

**Screened**  
Using Priority Hazard Lists with Results Disclosed?  Yes  No

**Identified**  
Name and Identifier Provided?  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.

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

COLD ROLLED STEEL [ IRON (IRON) **LT-P1** | END MANGANESE (MANGANESE) **LT-P1** | END | MUL | REP CARBON (CARBON) **LT-UNK** PHOSPHORUS (PHOSPHORUS) **BM-2** | AQU | MAM | PHY ALUMINUM (ALUMINUM) **LT-P1** | RES | END | PHY SULFUR (SULFUR) **LT-UNK** | SKI SILICON (SILICON) **LT-UNK** ] ZINCALUME® METALLIC COATING [ ALUMINUM **LT-P1** | RES | END | PHY ZINC **LT-P1** | AQU | END | MUL | PHY SILICON **LT-UNK** ]

Number of Greenscreen BM-4/BM3 contents..... 0  
Contents highest concern GreenScreen  
Benchmark or List translator Score..... LT-P1  
Nanomaterial..... No

### INVENTORY AND SCREENING NOTES:

ZINCALUME Plus is finished with a thin, clear, organic resin coating. This coating is below the 100ppm reporting threshold and therefore not detailed in Section 2. The coating aids in fabrication of final parts by providing lubricity and prevents finger printing during installation.

### VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

### CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

No certifications have been added to this HPD.

### CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed

Third Party Verified?

- Yes
- No

PREPARER: Self-Prepared  
VERIFIER: SCS Global Services  
VERIFICATION #: qGE-2485

SCREENING DATE: 2017-11-13  
PUBLISHED DATE: 2018-01-19  
EXPIRY DATE: 2020-11-13

## 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 2.1, available on the HPDC website at: [www.hpd-collaborative.org/hpd-2-1-standard](http://www.hpd-collaborative.org/hpd-2-1-standard)

### COLD ROLLED STEEL

%: 94.5990 - 98.3000

HPD URL:

MATERIAL THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals reported per chemical analysis by steel suppliers. Guidance for considering, identifying, and quantifying residuals is in pilot test phase. Once guidance is finalized, residual information will be reviewed. Vanadium and/or Columbium may be present as residuals in steel below the inventory reporting threshold of 100ppm. Residuals present above 100ppm are listed in the substances inventory.

OTHER MATERIAL NOTES: The weight contribution of the cold rolled steel will vary depending on the thickness of the steel and the weight of the aluminum/zinc metallic coating. See Section 5 for additional details.

#### IRON (IRON)

ID: 7439-89-6

%: 98.1400 - 99.0000 GS: LT-P1 RC: UNK NANO: No ROLE: Physical Structure

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

SUBSTANCE NOTES: Percentage is a range due to variations between specified steel chemistries and grades.

#### MANGANESE (MANGANESE)

ID: 7439-96-5

%: 0.1500 - 1.2000 GS: LT-P1 RC: UNK NANO: No ROLE: Physical Structure

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

MULTIPLE

German FEA - Substances Hazardous to Waters

Class 2 - Hazard to Waters

REPRODUCTIVE

Japan - GHS

Toxic to reproduction - Category 1B

SUBSTANCE NOTES: Percentage is a range due to variations between specified steel chemistries and grades.

#### CARBON (CARBON)

ID: 7440-44-0

%: 0.0200 - 0.2400 GS: LT-UNK RC: UNK NANO: No ROLE: Physical Structure

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SUBSTANCE NOTES: Percentage is a range due to variations between specified steel chemistries and grades.

## PHOSPHORUS (PHOSPHORUS)

ID: 7723-14-0

#: **0.0000 - 0.0300** GS: **BM-2** RC: **UNK** NANO: **No** ROLE: **Physical Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ACUTE AQUATIC

EU - R-phrases

R52 - Harmful to Aquatic Organisms

MAMMALIAN

US EPA - EPCRA Extremely Hazardous Substances

Extremely Hazardous Substances

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

SUBSTANCE NOTES: Percentage is a range to due to variations between specified steel chemistries and grades. Priority List of Hazardous Substances (rank 19).

## ALUMINUM (ALUMINUM)

ID: 7429-90-5

#: **0.0000 - 0.1000** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Physical Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H250 - Catches fire spontaneously if exposed to air

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H261 - In contact with water releases flammable gases

SUBSTANCE NOTES: Percentage is a range due to variations between specified steel chemistries and grades. The Priority List of Hazardous Substances (rank 179).

## SULFUR (SULFUR)

ID: 7704-34-9

#: **0.0000 - 0.0400** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Physical Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

SKIN IRRITATION

EU - R-phrases

R38 - Irritating to skin

SKIN IRRITATION

EU - GHS (H-Statements)

H315 - Causes skin irritation

SUBSTANCE NOTES: Percentage is a range due to variations between specified steel chemistries and grades.

#: **0.0000 - 0.2540** GS: **LT-UNK** RC: **UNK** NANO: **No** ROLE: **Physical Structure**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

No warnings found on HPD Priority lists

SUBSTANCE NOTES: Percentage is a range due to variations between specified steel chemistries and grades.

**ZINCALUME® METALLIC COATING**#: **1.7000 - 5.4000**

HPD URL:

MATERIAL THRESHOLD: 100 ppm

RESIDUALS AND IMPURITIES CONSIDERED: **No**

RESIDUALS AND IMPURITIES NOTES: Residuals reported per chemical analysis by steel suppliers. Guidance for considering, identifying, and quantifying residuals is in pilot test phase. Once guidance is finalized, residual information will be reviewed. Vanadium and/or Columbium may be present as residuals in steel below the inventory reporting threshold of 100ppm. Residuals that might be present above 100ppm are Copper (0.1540% max), Nickel (0.1000% max), Chromium (0.1340% max), Tin (0.0500% max), Molybdenum (0.0500% max), and Titanium (0.0100% max).

OTHER MATERIAL NOTES: Zinc and aluminum metallic alloy coating (ZINCALUME® is Steelscape LLCs trade name for Galvalume®) applied to cold rolled steel through the hot dip galvanization process per the latest version of ASTM A792 Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy Coated by the Hot Dip Process. The weight contribution of the metallic coating will vary depending on thickness of the cold rolled steel and the coating weight of zinc applied. See Section 5 for additional details.

**ALUMINUM**

ID: 7429-90-5

#: **51.0000 - 58.0000** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Corrosion Protection**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

RESPIRATORY

AOEC - Asthmagens

Asthmagen (ARs) - sensitizer-induced - inhalable forms only

ENDOCRINE

TEDX - Potential Endocrine Disruptors

Potential Endocrine Disruptor

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H228 - Flammable solid

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H250 - Catches fire spontaneously if exposed to air

PHYSICAL HAZARD (REACTIVE)

EU - GHS (H-Statements)

H261 - In contact with water releases flammable gases

SUBSTANCE NOTES: The Priority List of Hazardous Substances (rank 179)

**ZINC**

ID: 7440-66-6

#: **40.0000 - 48.0000** GS: **LT-P1** RC: **UNK** NANO: **No** ROLE: **Corrosion Protection**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

ACUTE AQUATIC

EU - R-phrases

R50 - Very Toxic to Aquatic Organisms

ACUTE AQUATIC

EU - GHS (H-Statements)

H400 - Very toxic to aquatic life

CHRON AQUATIC

EU - GHS (H-Statements)

H410 - Very toxic to aquatic life with long lasting effects

ENDOCRINE	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MULTIPLE	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H250 - Catches fire spontaneously if exposed to air
PHYSICAL HAZARD (REACTIVE)	EU - GHS (H-Statements)	H260 - In contact with water releases flammable gases which may ignite spontaneously

SUBSTANCE NOTES: Priority List of Hazardous Substances (rank 75)

## SILICON

ID: 7440-21-3

#: 1.3000 - 1.9000      GS: **LT-UNK**      RC: **UNK**      NANO: **No**      ROLE: **Corrosion Protection**

HAZARDS:

AGENCY(IES) WITH WARNINGS:

None Found

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.*

## 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.*

### MISC ACCESSORIES OR FASTENERS

HPD URL: **No HPD link provided**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

A wide variety of fastener and accessory products can be used in conjunction with this product. These are not manufactured by AEP Span and will depend on the preferences of the field installer.

### ACRYL-R SM5430 ROOF SEALANT

HPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

In-line sealant can be applied to some panel profiles. This is a third party manufactured product by ITW Polymers (ACRYL-R SM5430 Roof Sealant). Product mass is approximately 0.059lb per ft when used. This results in a product weight contribution of between 3% to 10%.

## Section 5: General Notes

The weight contribution of cold rolled steel, metallic coating and resin coating will vary based on the gauge (thickness) of the cold rolled steel, weight of the metallic coating specified and the surface coating weight. All figures referenced in this guide reflect unpainted 29 Ga material with a Zincalume® Plus coating (a combination of 94.599% steel and 5.40% metallic coating). This reflects the lightest standard offer base steel and heaviest metallic coating combination. All metallic AEP Products have a contribution ratio of steel between 94.599% -98.30% and a metallic coating range of 1.70-5.40%. Residuals in the cold rolled steel are reported per chemical analysis by steel suppliers. Guidance for considering, identifying, and quantifying residuals is in pilot test phase. Once guidance is finalized, residual information will be reviewed. Vanadium and/or Columbium may be present as residuals in steel below the inventory reporting threshold of 100ppm. Residuals present above 100ppm are listed in the substances inventory. Residuals in the ZINCALUME metallic coating were not considered. Specific guidelines for the determination of residuals in metal alloys have not yet been established by the Health Product Declaration Collaborative. The "Plus" portion of ZINCALUME Plus is a thin, clear, organic resin coating. It is applied at .0003 - .007% in the final product and is therefore below the 100ppm reporting threshold. The final weight contribution is dependent on the cold rolled steel thickness and weight of metallic coating applied.

## Section 6: References

### MANUFACTURER INFORMATION

MANUFACTURER: **ASC Profiles**  
ADDRESS: **2110 Enterprise Blvd**  
**West Sacramento CA 95691, US**  
WEBSITE: **www.aepspan.com**

CONTACT NAME: **Michelle Vondran**  
TITLE: **Technical Manager**  
PHONE: **909-484-4623**  
EMAIL: **michelle.vondran@bluescope.us**

### 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

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

### GreenScreen (GS)

<b>BM-4</b> Benchmark 4 (prefer-safer chemical)	<b>LT-P1</b> List Translator Possible Benchmark 1
<b>BM-3</b> Benchmark 3 (use but still opportunity for improvement)	<b>LT-1</b> List Translator Likely Benchmark 1
<b>BM-2</b> Benchmark 2 (use but search for safer substitutes)	<b>LT-UNK</b> List Translator Benchmark Unknown (insufficient information from List Translator lists to benchmark)
<b>BM-1</b> Benchmark 1 (avoid - chemical of high concern)	<b>NoGS</b> Unknown (no data on List Translator Lists)
<b>BM-U</b> Benchmark Unspecified (insufficient data to benchmark)	

### 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

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*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.*