Kingspan Insulated Panels- QuadCore Technology Panels

by Kingspan Insulated Panels North America

SCREENING DATE: 2026-04-02
PUBLISHED DATE: 2026-04-03
EXPIRY DATE: 2029-04-02
PREPARER: Self-Prepared

Health Product Declaration v3.0
created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 1040107625472
HPD UNIQUE PRODUCT ID: Not provided.
CLASSIFICATION: 07 42 13.19 Insulated Metal Wall Panels
PRODUCT DESCRIPTION: QuadCore® Technology is Kingspan's next-generation, self-blended hybrid insulation core used in insulated metal panel (IMP) systems. Identifiable by its distinctive gray microcell structure, QuadCore is engineered to deliver high combined performance across thermal efficiency, fire performance, and health-focused product attributes. With a nominal thermal resistance of R-8.0 per inch, QuadCore is positioned among the most thermally efficient insulation cores on the market; reported as approximately 11% higher than high-quality PIR, up to 60% higher than PUR, and about twice the performance of mineral fiber (performance comparisons may vary by assembly and test conditions). QuadCore also offers enhanced fire performance, including recognition as the first closed-cell IMP core to achieve FM 4882 certification for qualifying systems, demonstrated low-smoke characteristics (reported up to 85% lower Smoke Developed Index), and compatibility with NFPA 285 code-compliant wall assemblies. Kingspan backs QuadCore with a 30-year thermal performance warranty, supported by independent third-party testing, and the technology is designed to support occupant-focused priorities through health and wellness-related certifications, reinforcing Kingspan's emphasis on the human environment as well as the built environment. This HPD includes the following Quadcore products: KS Series, KS Granitstone, KS Flat, KS Shadowline Interior, KS Flat Interior, KarrierPanel, Optimo, and Designwall 4000. This HPD also includes the following QuadCore B products: Vale, Designwall 2000, and Designwall R Series.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format
→ Nested Materials Method

Threshold Disclosed Per
→ Product

Threshold Level
→ Per GHS SDS

Residuals/Impurities Evaluation
Completed in **2** of **2** Materials

Explanation(s) provided for Residuals/Impurities?
Yes

For all contents above the threshold, the manufacturer has:

Characterized Yes
Provided weight and role.

Screened Yes
Provided screening results using HPDC-approved methods.

Identified No
Provided name and CAS RN or other identifier.

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.

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

AISI 1008 CARBON STEEL (UNS G10080) [AISI 1008 CARBON STEEL (UNS G10080) MULTIPLE **ZINC, ELEMENTAL** LT-P1 | MUL | AQU **]**
POLYISOCYANURATE RIGID FOAM INSULATION [POLYISOCYANURATE NoGS **CYCLOPENTANE** LT-UNK | PHY | MAM | EYE | AQU **UNDISCLOSED** LT-UNK | EYE | MAM | REP **UNDISCLOSED** LT-1 | REP | DEV | SKI | EYE **]**

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

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... LT-P1, LT-UNK, BM-2

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Special Conditions applied: [MetalAlloy]

Substance inventory is based on supplier-provided GHS Safety Data Sheets and internal formulation knowledge, with disclosure aligned to GHS SDS threshold requirements (typically 0.1% (1000 ppm) for carcinogenicity, mutagenicity, and reproductive toxicity hazards, and 1% (10000 ppm) for other hazard classes). Hazard screening was conducted using the GreenScreen List Translator in accordance with the HPD Open Standard. Where full composition data were not available, information is based on best available supplier disclosures and industry knowledge. Substances without available hazard classifications are reported as LT-UNK. The steel panels are available in a wide variety of colors, thicknesses, and types of finishes offered, this HPD does not consider paints, finishes, or coatings in the materials listed. Any coating applied to the surfaces of these panels is coil-applied prior to the forming of the panel; as a result, no VOCs are generated at the job site due to field painting operations. This HPD aligns with LEED v4 and v4.1 Material Ingredients reporting requirements and follows GHS SDS-based disclosure thresholds.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

COMPLIANCE *See Section 3 for additional listings.*

VOC emissions: UL/GreenGuard Gold Certified
LCA: Environmental Product Declaration (EPD) by SCS

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

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 3.0, available on the HPDC website at: www.hpd-collaborative.org/hpd-3-0-standard

AISI 1008 CARBON STEEL (UNS G10080) **%: 55.0000 - 80.0000**

PRODUCT THRESHOLD: Per GHS SDS RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Metal

RESIDUALS AND IMPURITIES NOTES: Formulation data, including residuals, were collected from all suppliers and those above the stated threshold are included.

OTHER MATERIAL NOTES: Percentage range is due to variation in panel thickness. The percent by weight of the steel panels will depend on panel thickness and panel module.

AISI 1008 CARBON STEEL (UNS G10080) ID: **UNS G10080**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library**

%: **93.0000 - 96.0000** GreenScreen: **MULTIPLE** RC: **Both** NANO: **No** MATERIAL ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
Hazard Screening is not applicable to this Special Condition		

METAL ALLOY HPD: See alloy HPD for alloying content inventory, GreenScreen scores, and hazards: [UNS G10080]

METAL ALLOY NOTES: In compliance with HPDC Special Conditions Policy for Metal Alloys, the listed alloy is considered the ingredient in this product, and is reported without information regarding its alloying elements. Metal alloys have different intrinsic characteristics, including health and environmental hazards, than their alloying elements. An alloy HPD with alloying element content inventory, their GreenScreen scores, and hazards is available at the link above.

ALLOYING ELEMENTS

- **Iron (Fe)**
  CASRN: 7439-89-6
  Percentage: 99.31 % - 99.7 %
  Element Role: Alloy element
  GreenScreen Score: LT-P1

No listings found on Additional Hazard Lists

- **Magnesium (Mg)**
  CASRN: 7439-95-4
  Percentage: .3 % - .5 %
  Element Role: Alloy element
  GreenScreen Score: LT-UNK

No listings found on Additional Hazard Lists

- **Carbon (C)**
  CASRN: 7440-44-0
  Percentage: 0 % - 0.1 %
  Element Role: Alloy element
  GreenScreen Score: LT-UNK

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Antimicrobials

- **Sulfur (S)**
  CASRN: 7704-34-9
  Percentage: 0 % - 0.5 %
  Element Role: Alloy element
  GreenScreen Score: LT-UNK

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Antimicrobials

- **Phosphorus (P)**
  CASRN: 7723-14-0
  Percentage: 0 % - 0.04 %
  Element Role: Alloy element
  GreenScreen Score: BM-2

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022 Cosmetics & Personal Care Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Cosmetics and Personal Care Products

MATERIAL CONTENT NOTES: In compliance with HPDC Special Conditions Policy for Metal Alloys, the listed alloy is considered the ingredient in this product, and is reported without information regarding its alloying elements. Metal alloys have different intrinsic characteristics, including health and environmental hazards, than their alloying elements. Alloying elements are representative of the typical composition for UNS G10080.

ZINC, ELEMENTAL ID: **7440-66-6**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2026-04-02 6:58:17**

%: **4.0000 - 7.0000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Corrosion inhibitor**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Antimicrobials
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Children's Toy Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v5.0 Product Standard Restricted Substances - Effective March 16, 2026 Children's Toy Products

SUBSTANCE NOTES:

POLYISOCYANURATE RIGID FOAM INSULATION

%: 20.0000 - 45.0000

PRODUCT THRESHOLD: Per GHS SDS | RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes | MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Formulation data, including residuals, were collected from all suppliers and those above the stated threshold are included.

OTHER MATERIAL NOTES: Percentage range is due to variation in panel thickness. The percent by weight of the foam will vary by project. This particular foam blend was created uniquely for this product; therefore, no specific CASRN is applicable. The closest resemblance is CASRN 27026-93-3. Approximate percentage amounts of substances of the post-reaction foam were derived from reaction chemistry.

POLYISOCYANURATE

ID: **27026-93-3**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** | HAZARD SCREENING DATE: **2026-04-02 6:58:17**

%: **90.0000 - 95.0000** | GreenScreen: **NoGS** | RC: **None** | NANO: **No** | SUBSTANCE ROLE: **Polymer species**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

CYCLOPENTANE

ID: **287-92-3**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2026-04-02 6:58:17**

%: **2.0000 - 5.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Blowing agent**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
EYE	GHS - New Zealand	Eye irritation category 2
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3
PHY	GHS - New Zealand	Flammable liquids category 2
PHY	GHS - Japan	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]
PHY	GHS - Australia	H225 - Highly flammable liquid and vapour [Flammable liquids - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents

SUBSTANCE NOTES: Ingredient in blowing agent component of foam system. Approximate percentage amounts of substances of the postreaction foam were derived from reaction chemistry.

UNDISCLOSED

ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2026-04-02 6:58:18**

%: **1.0000 - 3.0000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Flame retardant**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	GHS - New Zealand	Eye irritation category 2
MAM	GHS - Japan	H371 - May cause damage to organs [Specific target organs/systemic toxicity following single exposure - Category 2]
REP	GHS - Japan	H361 - Suspected of damaging fertility or the unborn child [Toxic to reproduction - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Flame Retardants
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Some Solvents
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Avoidance of Organohalogens and Functionally Related Chemical Classes of Concern
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v5.0 Product Standard Restricted Substances - Effective March 16, 2026 Restrictions on Chemical and Functional Use Classes

SUBSTANCE NOTES: Proprietary ingredient in flame retardant component of foam system. Approximate percentage amounts of substances of the post-reaction foam were derived from reaction chemistry.

UNDISCLOSED ID: **Undisclosed**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2026-04-02 6:58:18**

%: **0.1000 - 1.0000** GreenScreen: **LT-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Catalyst**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
REP	EU - Annex VI CMRs	Reproductive Toxicity - Category 1B
DEV	EU - GHS (H-Statements) Annex 6 Table 3-1	H360D - May damage the unborn child [Reproductive toxicity - Category 1A or 1B]
SKI	GHS - Australia	H315 - Causes skin irritation [Skin corrosion/irritation - Category 2]
EYE	GHS - Australia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]
DEV	GHS - Australia	H361 - Suspected of damaging fertility or the unborn child [Reproductive toxicity - Category 2]
REP	EU - REACH Annex XVII CMRs	Reproductive toxicants: Category 1B

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v5.0 Product Standard Restricted Substances - Effective March 16, 2026 Restrictions Based on Hazard Endpoints and Risk (Silver)

SUBSTANCE NOTES: Proprietary catalyst. Approximate percentage amounts of substances of the post-reaction foam were derived from reaction chemistry.

Section 3: 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 — **UL/GreenGuard Gold Certified**

COMPLIANCE TYPE: Third-party certification
ISSUE DATE: 2017-08-31 **EXPIRY DATE:** 2026-08-31
CERTIFIER/VERIFIER/TESTING LAB/AUDITOR: UL
COMPLIANCE DETAILS:
COMPLIANCE SCOPE: Product
APPLICABLE FACILITIES: All
COMPLIANCE URL: https://spot.ul.com
COMPLIANCE NOTES:

LCA — **Environmental Product Declaration (EPD) by SCS**

COMPLIANCE TYPE: Third-party certification
ISSUE DATE: 2022-07-22 **EXPIRY DATE:** 2027-07-21
CERTIFIER/VERIFIER/TESTING LAB/AUDITOR: SCS Global Services
COMPLIANCE DETAILS:
COMPLIANCE SCOPE: Product
APPLICABLE FACILITIES: All
COMPLIANCE URL: https://www.kingspan.com/us/en/campaigns/certifications/epd
COMPLIANCE NOTES:

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.

CLADDING ACCESSORIES & COMPONENTS
MANUFACTURER (OR GENERIC): **Kingspan**

HPD URL: No HPD Available
ACCESSORY TYPE: Fastener
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Accessories include various fastening systems, including clips, fasteners, trims, etc. The exact accessory will vary by project.

Section 5: General Notes

This HPD includes the following Quadcore products: KS Series, KS Granitstone, KS Flat, KS Shadowline Interior, KS Flat Interior, KarrierPanel, Optimo, and Designwall 4000.
This HPD also includes the following QuadCore B products: Vale, Designwall 2000, and Designwall R Series.

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Kingspan Insulated Panels North America**
ADDRESS: **725 Summerhill Drive**
DeLand, FL 32724
COUNTRY: **United States**

WEBSITE: **https://www.kingspan.com/us/en/products/insulated-panel-systems/**
CONTACT NAME: **Brent Trenga**
TITLE: **Director of Sustainability**
PHONE: **386-626-6789**
EMAIL: **Brent.Trenga@Kingspan.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
NoGS No GreenScreen.

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

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 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.