



2020
MATERIAL SAFETY DATA SHEET
Fortress Deck *Apex*[™]

Manufacturers details

Product name: Fortress Deck Apex™ co-extruded mineral-polymer composite decking.

Product use: This product is primarily used for decking, cladding, etc.

Manufacturers information: Fortress Deck, 1720 N. 1ST Street, Garland TX, 75040

Emergency contacts:

1-866-323-4766

Product information:

1-866-323-4766

Website:

www.FortressDeck.com

Hazard identification

This material is non-hazardous.

Emergency overview

Keep away from oxidizing materials. Dust may form an explosive mixture with air. Use exhaust ventilation when cutting, sawing or grinding in enclosed area. Dust may cause irritation to eyes, skin and upper respiratory tract. When cutting, sanding, or grinding avoid inhalation and wear safety glasses. Use puncture resistant gloves. Wash thoroughly after handling should irritation occur.

Substance	Approximate mass	CAS Number	Agency	Exposure limit	Comment
Core					
Polyvinyl chloride (PVC)	50 %	9002-86-2	OSHA-PEL ACGIH-TLV	5 mg/m ³ (respirable dust) 10 mg/m ³ (as nuisance dust)	Thermoplastic
Calcium Carbonate (CaCO ₃)	40 %	471-34-1	OSHA-PEL NIOSH-REL	5 mg/m ³ (respirable dust) 5 mg/m ³ (respirable dust)	N/A
Bamboo fibre	0 – 10 %	N/A	OSHA-PEL OSHA-REL ACGIH-PEL ACGIH-REL	PEL-TWA 15 mg/m ³ PEL-TWA 5 mg/m ³ TLV-TWA 3 mg/m ³ TLV-STEL 10 mg/m ³	Total dust Respiratory dust fraction Respiratory dust fraction Inhabitable particles
Foaming agent					Information withheld
Lubricating agent					Information withheld
Cap					
Acrylonitrile styrene acrylate (ASA)	70 – 100 %	26299-47-8	N/A	Non-hazardous material	N/A
Additives	1 – 30 %			Information withheld	
Additional additives					
Anti-mould agents, coupling agents, anti-UV agents, colour pigments, etc.					Information withheld

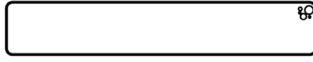
NOTE

The primary composition of this product is PVC. This product contains a proprietary blend of components encapsulated within a polymer matrix. Trace impurities may be present but are in insignificant quantities to affect the purity of the product.

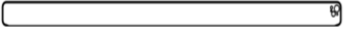
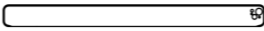
Bamboo is a species of the grass family which has distinct anatomical differences from that of wood. Therefore bamboo would be regulated as an organic dust in a category known as “Particulates not otherwise regulated” (PNOR), or nuisance dust by OSHA. The ACGIH classifies dust or particulate in this category as “Particulates not otherwise specified”.

Deck profile specification

The Apex™ range was developed to provide a lightweight alternative to the Fortress Deck cellulose-polymer range. The foamed mineral-polymer core has improved water absorption and fire resistance behavior. The innovative double layer polymer coat provides a unique texture and aesthetic characteristic as well as improved slip resistance.

Description	Profile width (in.)	Profile height (in.)	Typical length (in.)	Weight per Foot (lbs./ft.)	Recommended spans (in.)
 Grooved deck board single-sided	5.5	0.944	144 192 240	1.57	16
 Square edge deck board single-sided	5.5	0.944	240	1.65	16

Fascia profile specifications

Description	Profile width (in.)	Profile height (in.)	Typical length (in.)	Weight per Foot (lbs./ft.)	Recommended spans (in.)*
 Fascia board single-sided	11.7	0.65	144	2.06	16
 Fascia board single-sided	7.25	0.55	144	1.45	16

*Spans are based on boards in a vertical orientation.

First aid measures

Eye contact:

Following exposure to dust, flush thoroughly with water. If irritation occurs, call a physician. Safety glasses should be worn to avoid irritation,

Skin contact:

Exposure to dust is not expected to be a problem. If irritation does occur, wash contact areas with soap and water. Launder contaminated clothing before reuse. Rough edges of the products could result in minor cuts. Work gloves and long sleeve shirts should be worn to prevent skin damage.

Inhalation:

If respiratory issues such as extensive coughing, shortness of breath, wheezing or chest tightness occurs after exposure to dust, avoid further exposure and seek immediate medical assistance. Wear appropriate PPE such as safety glasses and dust masks.

Ingestion:

Small amounts of ingestion of the material are not usually problematic. However, if uncomfortable, seek medical assistance.

Firefighting measures

Extinguishing media to keep on hand:

Foam, dry chemical, carbon-dioxide(CO₂), water-spray.

Special fire-fighting procedures:

Use extinguishing media most appropriate for fire type. Douse affected and surrounding areas with water in normal circumstances. For fires in enclosed areas, firefighters must use self-contained breathing apparatus and suitable protective gear.

Special protective equipment:

For fires in enclosed areas, firefighters must use self-contained breathing apparatus. The product will produce smoke and hazardous gases once ignited.

Unusual fire and explosion hazards:

High dust levels may lead to the potential for explosions in certain conditions. Static discharge could be an ignition source for a combustible concentration of dust.



Hazardous decomposition product:

Carbon monoxide, carbon dioxide, and hydrogen chloride

Accidental release measures

Where dusty conditions are created as a result of cutting or sawing, wet the saw dust down then sweep or vacuum for disposal. Personnel performing clean-up must use protective appropriate equipment such as dust masks.

Handling and storage

- Individual boards are lighter than WPC and can be more easily handled. Boards are, however, bundled for convenience and can, as a result, be heavy. Take care when lifting, placing or removing from raised pallets. More than one person may be required for lifting depending on the length of the boards and the number of boards within a bundle. Ensure the mass handled does not exceed safe limits as defined by applicable local legislation.
- When handling lengths of boards greater than 12', ensure both ends are lifted simultaneously and evenly. Lift the boards 3' from each end to provide better control.
- Handle the boards carefully. Dropping the boards (and all high impact loads in general) can result in damage to the profiles.
- During transportation use corner protectors where strapping is required.
- All components should be stored completely under cover.
- When storing boards, a pallet or flat surface should be used to support the full length of each component.
- All components should be securely stored.
- No component should sit in water or similar.
- Avoid over-stacking and/or eccentric stacking.

Personnel precautions

Use with adequate ventilation in processing operations. This product is designed for external use. In most circumstances natural outdoor ventilation should suffice without further special requirements.

Exposure controls and personal protection measures

Ventilation:

Use with adequate ventilation in processing operations. This product is designed for external use. In most circumstances natural outdoor ventilation should suffice without further special requirements. Provide appropriate local ventilation at machinery and at places where dust can be generated.

Respiratory protection:

Approved dust respirators must be used for dusty conditions or if inhalation of dust is likely. There are no requirements under ordinary conditions of use and with adequate ventilation.

Eye protection:

Safety glasses with side shields, or goggles, should be worn to protect against dust particles when operating tools.

Skin protection:

No special equipment is required under normal circumstances. Gloves and long sleeves should be worn during interaction.

National occupational exposure limits:

Refer to National OHS Codes.

Biological limit values:

Refer to National OHS codes.

Personal protection equipment:

Always wear appropriate Personal Protective Equipment (PPE) for the various activities involved in installing Fortress Deck Apex™ materials. This includes, but is not limited to, general equipment such as safety glasses, helmets, gloves and boots, dust-masks when cutting or similar, and harness systems when working at heights or similar. The local occupational health and safety legislation will dictate.

Physical and chemical properties

Surface properties				
Physical properties		Measured value	Test standard	Note
Physical state		Solid		
Appearance		Boards and planks		
Linear thermal expansion coefficient		4.34 × 10 ⁻³ C° -1	ASTM D6341-2016	
Bulk density kg/m ³		670		
Scratch resistance		2N	FORD FLTM BO 162-01-2009	
Finish		L		
Slip resistance - Pendulum test	With Grain	65	AS 4586-2013 Appendix A	
	Across Grain	67	AS 4586-2013 Appendix A	
Abrasion	mg/r	0.1	ASTM D4060-14	CS-17/1000g
Shore hardness	(HD)	82	ISO 868-2003	

Stability and reactivity

Use with adequate ventilation in processing operations. This product is designed for external use. In most circumstances natural outdoor ventilation should suffice without further special requirements.

Stability:

Stable.

Conditions to avoid:

Extreme heat and flame, build up of dust and debris.

Incompatibility (materials to avoid):

Strong oxidizers.

Decomposition products:

Carbon monoxide, carbon dioxide and hydrogen chloride if ignited.

Hazardous polymerization:

Will not occur.

Toxicology information:

See composition list for limitations.

The following information on polyvinyl chloride is extracted from both the HSDB and NTP databases.

Animal Toxicity Oral:	Rat, TDLO	210	gm/kg
Inhalation:	Mouse, LC50	140	mg/M3/10M

TDLO = Lowest toxic dose in a given species by a given route of exposure.

LC50 = Concentration that is lethal to 50% of a given species by a given route of exposure.

Rodents exposed to PVC by dietary or inhalation routes for 6 to 24 months have shown no significant toxicological effects.

Ecological information:

Environmental fate and effects:

No foreseeable environmental effects

Disposal considerations:

Environmental fate and effects:

Do not dump into any sewers, on the ground, or into any body of water. Any disposal practice must be in compliance with local, state and federal laws and regulations (contact local or state environmental agency for specific rules). Waste characterization and compliance with applicable laws are the responsibility of the waste generator.

Transport information:

Air transport:

Not classified as dangerous goods by the International Air Transport Association (IATA).

Road and rail transport:

Not classified as dangerous goods. See local and national guidelines for weight and transportation restrictions. Boards may require long trailers for transportation dependant on the length and should not be allowed to overhang to the point of bowing during transportation. Boards must be properly secured at all times.

Marine transport:

Not classified as dangerous goods by the International Maritime Dangerous Goods Code (IMDG).

Other information

Document disclaimer

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Utilization disclaimer

Legislation may differ between jurisdictions. Before installing any Fortress Deck product, ensure that the application is rational and complies with the local regulations and building codes. Wherever necessary, consult a suitably qualified professional. Be sure to comply with material manufacturer specifications. Where manufacturers and building codes differ, revert to the building code requirements. Check that your choice of product is suitable for its intended application. For further product specification and information visit www.FortressDeck.com.

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