Casabella Rigid LVT Flooring

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name **Rigid LVT Flooring** (all grade and thickness)

Description Polymeric floor covering

Manufacturer **Casabella Floors**
NO 111 Chang Jiang Road
Jiashan Development Area
314100 Jiaxing, P.R.China
Information phone: (0086) 573-8472-2837

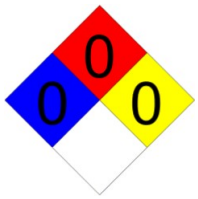
IN CASE OF EMERGENCY CONTACT: (0086) 573-8472-2837

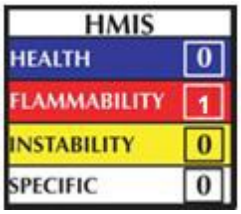
2 HAZARDS IDENTIFICATION

Overview: Solid plank or tile material with brown core and overprinted designs. No appreciable odor.

Classification

Regulation (EC) No 1272/2008: The material is not classified according to the CLP regulation.
Directive 67/548/EEC or Directive 1999/45/EC: Not applicable.
GHS-US: this product is not classified as hazardous.
OSHA Standard 29 CFR 1910.1200: no classification known
SARA Title III, Section 313: no classification known
HMIS: Health = 0, Flammability = 1, Reactivity = 0; Specific = 0 (0= minimal hazard; 4 = severe hazard)
NFPA: Health = 0, Flammability = 0, Reactivity = 0 (0= minimal hazard; 4 = severe hazard)





Route of Entry: None for product as sold. For dust or chips generated during fabrication operation: eye contact, skin contact, and inhalation.

Target Organs: None

Inhalation: No hazard for product as sold. Fabrication operation such as milling, cutting, grinding, etc., may produce dust or chips that may be irritating or harmful if inhaled. Repeated and prolonged inhalation of dust may lead to chronic respiratory irritation. Asthmatics conditions may be aggravated be uncontrolled airborne dust exposures.

Skin Contact: Solid piece (strip, sheet,…) may be abrasive to, or cut skin. Fabricating operations such as milling, cutting, grinding,...may produce dust or chips that may be irritating.

Eye Contact: No hazards for products as sold. Fabricating operations such as milling, cutting, grinding, etc., may produce dust or chips that may be irritating.

Ingestion: Not an expected route of entry with normal use of product.

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3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS No	EC No	% by weight	GHS-US classification	EC classification
PVC resin	9002-86-2	200-831-0	30-50	Not classified	Not classified
Calcium Carbonate	471-34-1	Not classified	50-70	Not classified	Not classified
Additive	Mixture	Mixture	< 3	Mixture	Mixture
Toner	Mixture	Mixture	< 1	Mixture	Mixture
Coating	Mixture	Mixture	< 1	Mixture	Mixture
Adhesive	mixture	Mixture	< 1	Mixture	Mixture

4 FIRST AID MEASURES

Inhalation: No hazard for product as sold. Fabrication operations such milling, cutting, grinding, etc., may produce dust or fines that may be irritating or harmful if inhaled. If irritation persists, seek medical attention.

Skin Contact: Solid piece (strip, sheet,…) may be abrasive to, or cut skin. Fabrication operations such as milling, cutting, grinding, etc., may produce dust or fines that may be irritating. Wash with soap and water. If irritation persists, seek medical attention.

Eye Contact: No hazards for product as sold. Fabrication operations such as milling, cutting, grinding, etc., may produce dust or fines that may be irritating. Rinse eyes with water for 15 minutes. If irritation persists, seek medical attention.

Ingestion: Not an expected route of entry with normal use of product.

5 FIRE FIGHTING MEASURES

Flash point: Not available
Lower Explosive Limit (LEL) %: Not available
Upper Explosive Limit (UEL) %: Not available
Auto-ignition temperature: Not available
OSHA flammability classification: Not available
Hazardous products of combustion: Protect self from combustion products and fumes
Extinguishing media: Water spray, CO2, foam, dry chemical
Unusual fire and explosion hazards: None
Fire fighting equipment: Self-contained breathing apparatus and full protective clothing
Miscellaneous advice: ASTM E-648 CRF value greater than 0.45 W/Square CM. Material is considered to be self extinguishing.

6 ACCIDENTAL RELEASE MEASURE

Personal precautions: None. This is a non-hazardous material.

Method for clean-up: Due to solid, insert properties, scrap pieces may be simply swept up and disposed of as a solid non- hazardous waste per local, state and federal regulation.

7 HANDLING AND STORAGE

Handling Precautions: Install with adequate ventilation.

Storage Requirements: Store in a dry, well ventilated area.

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8 EXPOSURE CONTROLS/PERSONAL PROTECTUION

Protective Equipment: When ventilation is not adequate, wear an approved/certified respirator with an appropriate particulate dust filter. Gloves suitable for protection against cuts and abrasions from sharp edges are recommended. Wear safety goggles during fabrication operations that produce materials, i.e. chips, that may be ejected and impact the eyes.
Cutting of this product may produce dust. Consult local authorities and local regulations for exposure limits.

Hygienic practices: Wash hands before easting, smoking, or using toilet facilities, and after handling this product.

9 PHYSICAL and CHEMICAL PROPRERTIES

Appearance:	Plank or tile flooring	**Flash point:**	Not available
Physical state:	Solid plank or tile	**Evaporation rate:**	Not available
Specific gravity:	1.1-1.4 (water = 1.0)	**Flammability:**	Not available
Odor:	No appreciable odor.	**Vapor pressure/density:**	Not available
PH:	Not available	**Relative density:**	1.1-1.4 kg/m3
Melting point:	Not available	**Solubility:**	Negligible
Freezing point:	Not available	**Auto-ignition temperature:**	Not available
Initial boiling point:	Not available	**Viscosity:**	Not available

Decomposition temperature: **Not available**

Decomposition products: Thermal decomposition in the presence of air may yield carbon dioxide (CO2), carbon monoxide (CO) and possible hydrochloric acid (H2S)

10 STABILITY and REACTIVITY

Condition to avoid:	Stable
Material o avoid:	Stable
Reactivity:	Stable
Stability:	Stable
Hazardous reactions:	Should not occur
Hazardous polymerization:	Should not occur
Hazardous decomposition products:	Not available

11 TOXICOLOGICAL INFORMATION

Product LD50 (Oral):	Not available
Product LD50 (Dermal):	Not available
Product LC50:	Not available
Immediate (acute) effects:	No known acute toxicological hazards
Delayed (subchronic & chronic) effect:	No known subchronic ar chronic toxicological hazards

12 ECOLOGICAL INFORMATION

No ecological impact study information is available on this product

13 DISPOSAL CONSIDERATIONS

Dispose of according to Federal state, and local regulations.

14 TRANSPORT INFORMATION

The information provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transport.

Material is non-hazardous and not regulated by USDOT.

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15	REGULATORY INFORMATION
Formaldehyde:	Formaldehyde emission of this product is within E1 standard (EN 717-1) Formaldehyde emission of this product is within the California Air Resources Board's (CARB) Airborne Toxic Control Measure (ATCM) 93120 Title 17, California Code of Regulations, and meets the CARB Phase 2 standards. Product does not require special protection before, during and after installation of the flooring
Phthalate:	This product is ortho- phthalates free and comply with Californian Regulation Proposition 65. However, potential traces of ortho-phthalates can be found but at a level lower than 1000 ppm.
Asbestos:	This product does not contain asbestos
U.S. Federal regulations:	Not available
SARA section 313:	Not available
TSCA:	Not available

16	OTHER INFORMATION

OSHA - Occupational Safety and Health Administration TSCA
- Toxic Substances Control Act
ppm - parts per million
GHS – Globally Harmonized System (of classification and labeling of chemicals) NFPA:
National Fire Protection Association
USDOT – United State Department Of Transportation

DISCLAIMER

To the best of our knowledge, the information contained herein accurate. However, neither the above named manufacturer nor any of its subsidiaries assumes any liability whatsoever for accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards described herein, we cannot guarantee that these are the only hazards that exist.

END OF SDS DOCUMENT

Specification Sheet RLVT

TECHNICAL SPECIFICATIONS

Bevel	Cut	**UFH**	See IM
Lock	Tight lock	**Installation**	Floating

Layer	Thickness (mm)	Thickness (mil)	Type
Top Layer	0.3	12	Quartz enhanced UV cured coating
Core	2.7	106	Waterproof thermoplastic composite
Backing Layer	1.0	39	
Total	**4.0**	**157**	

CERTIFICATIONS & CHEMICAL PROPERTIES

Norm	Item	Test method	Requirement	Result
EN 14041	Emissions	EN 717-1	≤ 0.124 mg/m3	E1
Decret No2011-321	Emissions	ISO 16000	TVOC<1000μg/m3	VOC A+
GreenGuard Gold	Emissions	Spectrometry, chromatography	TVOC≤220μg	Working on it
Prop 65	Orthophthalates	Spectrometry	ND	Compliant
CPSIA	Lead	CPSC-CH-E-1002-08	≤ 90ppm	Compliant
EU REACH Regulation	PAHs	Spectrometry, chromatography	<1mg/kg	Compliant
	SVHC	Spectrometry, chromatography	≤ 0.1% (w/w)	Compliant
EN 14041	CE Certification	Multiple	Multiple	Compliant

PHYSICAL PROPERTIES

Norm	Item	Test Method	Requirement	Result
ASTM F3261	Surface Integrity	ASTM F1914	No puncture	Pass
	Dimensional Stability	ASTM F2199/ISO 23999	ΔW/ΔL ≤ 0.2% (commercial)	Pass
	Curling	ASTM F2199/ISO 23999	≤2mm	Pass
	Length tolerance	ISO 24337	+/- 2 mm	Pass
	Width tolerance	ISO 24337	+/- 0.4mm	Pass
	Thickness tolerance	ASTM F387	+/- 0.13mm (no backing); +/- 0.20mm (with)	Pass
	Squareness	ISO 24337	0.25mm	Pass
	Flatness	ISO 24337	Length: ≤ 0.50% (concave) ≤ 1.0% (convex) Width: ≤ 0.10%(concave) ≤ 0.15% (convex)	Pass
	End lift	ISO 24337	≤ 0.5% of the planks length	Pass
	Bowing	ISO 24337	≤ 1.0% of the planks length	Pass
	Residual Indentation	ASTM F1914	≤0.18mm (70lbs/34kg)	Pass
	Static load	ASTM F970/ASTM F387	≤0.13mm	Pass
	Resistance to Chemicals	ASTM F925	Slight change only	Pass
	Resistance to Heat	ASTM F1515	△E ≤8	Pass
	Resistance to light	ASTM F1514	△E ≤8	Pass
ASTM F1700*	Thickness tolerance	ASTM F386	+/- 0.13mm	Pass
	Squareness	ASTM F2055	0.25mm	Pass
	Residual Indentation	ASTM F1914	≤ 8% (140 lbs/63.5kg)	Pass
	Dimensional Stability	ASTM F2199	ΔW/ΔL ≤ 0.16%	Pass
ISO 10582	Residual Indentation	ISO 24343-1	≤ 0.1mm	Pass
	Resistance to light	ISO 105-B02:1994,	≥ Grade 6	Pass
	Locking strength (23℃)	ISO 24334	Long side≥2.0 kN/m, Short side≥ 3.5 kN/m	Pass
	Castor chair	ISO 4918	Only slight change	Pass, Class 31
NALFA LF 01-2011	Resistance to Chemicals	NALFA LF 01-2011	Slight change only	Class 4, meets commercial requirements
	Impact Resistance	NALFA LF 01-2011 3.5	≥ 1400mm	Class 4, meets commercial requirements
	Impact Resistance	NALFA LF 01-2011 3.6	≥ 500mm	Class 4, meets commercial requirements
EN 14041	Thermal Resistance (R)	EN 12667/ASTM C518	NA	Suitable for underfloor heating systems
	Slipperiness	EN 13893	≥ 0.3	Pass
	Reaction To fire	EN 13051-1	NA	Class Bfl -S1
	Static Electrical Propensity((voluntary))	EN 1815	≤ 2.0kV	NA
Others	Density	ISO 23996	NA	Around 1550 kg/m3
	Airborne sound transmission	ASTM E413-16	≥50	67
	Impact sound transmission	ASTM E989-6	≥50	63
	Reducing impact sound transmission	ASTM E2190-16	NA	23
	Slipperiness	ANSI A137-1	≥ 0.42	Pass
	Slipperiness	DIN 51130	NA	R9
	Rolling Load	ASTM F2753	NA	0.005 inch
	Fire Resistance (CHF)	ASTM E648/NFPA 253	≥0.45	Class 1
	Abrasion Resistance	ASTM D4060	NA	NA

*Note: Only tests specific to ASTM F1700 are listed here; for tests and requirements similar to ASTM F3261, please refer to the tests under that standard

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LEED SCORECARD

LEED was developed to address all buildings everywhere, regardless of where they are in their life cycle. From hospitals to data centers, from historical buildings to those still in the design phase, there is a LEED certification programm for every building. Our products will contribute value to a building's LEED v4 Scorecard in the following LEED certiifcation programm categories recognized by the USGBC as per following

LEED Programme Certifcation	Category	Credit Title	LEED Points Attainable	Credit Description	How our product contributes to obtaining LEED points
 Building Design and Construction	**Indoor Environmental Quality**	Credit 1: Enhanced Indoor Air Quality Strategies – Option 2 Additional Enhanced IAQ Strategie - option D	1 point ID&C, 2 points Retail CI	To reduce concentrations of chemical that can damage air quality, human health, productivity, and the environment.	1. Formaldehyde emission are less than 0.05mg/m3, TVOCs are less than 0.5mg/m3.
		Credit 2: Low-Emitting Materials – Option1 Flooring	1 point		1. VOC emission are less than 0.5mg/m3.
		Credit 4: Indoor Air Quality Assessment - Option 2 Air Testing	2 points	To establish better quality indoor air in the building	1. Formaldehyde emission are less than 0.05mg/m3, TVOCs are less than 0.5mg/m3.
		Credit 9: Acoustic Performance	2 points	To provide effective acoustic design	The product has a high acoustic performance. IIC and STC test report are available on request
	Material & Resource	Credit 3: sourcing of raw material - Recycled Content – Option 2	1 point	Increase demand for building products that incorporate recycled content materials	The products has a Natural Cork Underlay pre attached. Natural cork underlay contains at least 95% pre-consumer content
		Credit 4: Material ingredient– Option 2	1 point	Minimize the use and generation of harmful substances	The product is 100% REACH compliant
 Building Operations and Maintenance		Credit 6 – PBT source reduction: lead, cadmium and copper	1 point	To reduce the release of persistent, bioaccumulative, and toxic chemicals	The product is free of lead, cadmium and copper
 Building Operations and Maintenance	**Material & Resource**	Credit 3: Purchasing - Facility maintenance and renovation	1 point	To reduce the environmental harm from materials used in building renovations	1. The product is 100% REACH compliant 2. Formaldehyde emission are less than 0.05mg/m3, TVOCs are less than 0.5mg/m3. 3. Test repost according to ISO 16000 is available on request.
	Indoor Environmental Quality	Credit 2: Contaminant Control – Option 4 Air Testing	1 point	Demonstrate that contaminants do not exceed concentration levels listed	1. VOC emission are less than 0.5mg/m3.
 Homes		Credit 7: Low-Emitting Materials	0.5 point	To reduce occupants' exposure to airborne chemical contaminants	The product is made with ULEF or non-added formaldehyde material
 Interior Design and Construction	**Material & Resource**	Prerequiste – Durability management	0 point (Prerequiste)	To promote durability and performance of the building	The product is water resistant
	Indoor Environmental Quality	Credit 1: Enhanced Indoor Air Quality Strategies – Option 2 Additional Enhanced IAQ Strategies - option D	1 point ID&C, 2 points Retail CI	To reduce concentrations of chemical contaminants that can damage air quality, human health, productivity, and the environment.	1. Formaldehyde emission are less than 0.05mg/m3, TVOCs are less than 0.5mg/m3.
		Credit 2: Low-Emitting Materials – Option1 Flooring	1 point		1. VOC emission are less than 0.5mg/m3.
 Interior Design and Construction		Credit 4: Indoor Air Quality Assessment - Option 2 Air Testing	2 points	To establish better quality indoor air in the building	1. Formaldehyde emission are less than 0.05mg/m3, TVOCs are less than 0.5mg/m3.
		Credit 9: Acoustic Performance	2 points	To provide workspaces and classrooms effective acoustic design	The product has a high acoustic performance. IIC and STC test report are available on request
	Material & Resource	Credit 4: Material ingredient– Option 2	1 point	Minimize the use and generation of harmful substances	The product is 100% REACH compliant

WELL SCORECARD

The WELL Building Standard is founded on the understanding that facets of our environment interact with personal, genetic and behavioral factors to shape our overall health and well-being. By compiling leading practices in

Facet	Feature	Part	Requirements	Concept score	How our product contribute to obtain WELL level certification
AIR	**01. Air quality standards**	**1. Standards For Volatile Substances**	The following conditions are met: a. Formaldehyde levels less than 27ppb (0.027ppm) b. Total volatile organic compounds less than 500ug/m3 (0.5mg/m3)	PRECONDITION	a. Formaldehyde emission are less than 0.05mg/m3. b. The total volatile organic compounds are less than 0.5mg/m3.
	04. VOC Reduction	**1. Interior Paints and Coatings**	The VOC limits of newly applied paints and coating meet one of the following requirements: a. 100% of installed products meet California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011 for VOC content. b. At minimum 90%, by volume, meet the California Department of Public Health (CDPH) Standard Method v1.1-2010 for VOC emissions	PRECONDITION	a. The VOC limits for California Air Resources Board (CARB) are less than 0.11ppm. b. Measured Concentration of Total Volatile Organic Compounds (TVOC): Less than/equal to 0.5 mg/m3 (in compliance with CDPH/EHLB Standard Method v1.1-2010).
		3. Flooring	The VOC emissions of all newly installed flooring must meet all limits set by the following, as applicable: a. California Department of Public Health (CDPH) Standard Method v1.1-2010.	PRECONDITION	Conforms to the CDPH/EHLB Standard Method v1.1-2010 (California Section 01350), effective January 1, 2012, for the school classroom and private office parameters when modeled as Flooring.
	11. Fundamental Material Safety	**1. Asbestos and Lead Restriction**	All newly-installed building materials meet the following materials composition requirements: a. No asbestos. b. Not more than 100 ppm (by	PRECONDITION	a. No asbestos b. The product contain less than 100 ppm.
		2. Lead Abatement	For repair, renovation or painting on buildings constructed prior to any applicable laws banning or restricting lead paint, lead evaluation and abatement.	PRECONDITION	The product contain less than 90 ppm.
		3. Asbestos Abatement	To reduce hazards in buildings constructed prior to any applicable laws banning or restricting asbestos, the following testing, evaluation and abatement.	PRECONDITION	The product contain less than 90 ppm.
	25. Toxic Material Reduction	**2. Flame Retardant Limitation**	Halogenated flame retardants are limited in the following components to 0.01% (100 ppm) to the extent allowable by local code: a. Window and waterproofing membranes, door and window frames and siding. b. Flooring, ceiling tiles and wall coverings. c. Piping and electrical cables, conduits and junction boxes. d. Sound and thermal insulation. e. Upholstered furniture and furnishings, textiles and fabrics.	OPTIMIZATION	The product don't contain halogenated flame retardants
		3. Phthalate (Plasticizers) Limitation	DEHP, DBP, BBP, DINP, DIDP or DNOP	OPTIMIZATION	In accordance with US Consumer Product
		5. Urea-Formaldehyde Restriction	Urea-formaldehyde presence is limited in the following components to 100 ppm: a. Furniture or any composite wood products. b. Laminating adhesives and resins. c. Thermal insulation.	OPTIMIZATION	The product contains urea-formaldehyde less than 100ppm.
Comfort	**74. Exterior Noise Intrusion**	**Part 1. Sound Pressure Level**	Each regularly occupied space meets the following sound pressure level as mesured when the space and adjacent spaces are unoccupied, but within 1 hour of normal business hours: a. Average sound pressure level from outside noise intrusion does not exceed 50 dBA.	PRECONDITION	1. The product has IIC = 63 according to the standard ASTM E492-09 2. The product has STC = 67 according to the standard ASTM E90-09
	79. Internally Generated Noise	**Part 1. Sound Masking Limits**	If sound masking systems are used, sound levels fall within the following range, when measured from the nearest workspace: a. Open workspaces: 45 - 48 dBA. b. Enclosed offices: 40 - 42 dBA	OPTIMIZATION	1. The product has IIC = 63 according to the standard ASTM E492-09 2. The product has STC = 67 according to the standard ASTM E90-09