



















60x60cm 24"x24" 10mm 60x60cm 24"x24" 20mm 60x120cm 24"x48" 20mm

Compliant with standards EN 14411 annex G group BIa Compliant with standards ISO 13006 annex G group BIa



	Technical features	Test Method	Requirements for nominal size N			TILE	
			7cm≤N<15cm	N≥15cm			
			(mm)	(%)	(mm)	1CM	2CM
	Length and width	ISO 10545–2	± 0.9	± 0.6	± 2.0	± 0.01% ± 0.02mm	± 0.07% ± 0.36mm
	Thickness		± 0.5	± 5	± 0.5	± 1.00% ± 0.10mm	± 1.90% ± 0.25mm
	Straightness of sides		± 0.75	± 0.5	± 1.5	± 0.04% ± 0.23mm	± 0.15% ± 0.89mm
	Rectangularity		± 0.75...	± 0.5...	± 1.5...	± 0.06% ± 0.36mm	± 0.09% ± 0.56mm
	Surface flatness	c.c ± 0.75	c.c ± 0.5	c.c ± 2.0	± 0.09% ± 0.74mm	± 0.12% ± 1.01mm	
		e.c ± 0.75	e.c ± 0.5	e.c ± 2.0			
		W. ± 0.75	W. ± 0.5	W. ± 2.0			
			En14411 annex G (Group BI _a)		ISO 13006 annex G (Group BI _a)		
	Water absorption	ISO 10545–3	E≤0.5% individual maximum 0.6%			E≤0.11%	E≤0.38%
	Breaking strength	ISO 10545–4	S≥1300N (293lbf)			S≥2500N (562lbf)	S≥11000N (2473lbf)
	Modulus of rupture		R≥35N/mm² (5077psi)			R≥42.4N (6150psi)	R≥42.5N (6165psi)
	Abrasion resistance	ISO 10545–6	≤175mm³			Class 4	Class 4
	Coefficient of thermal linear expansion	ISO 10545–8	Declared value		Test method available	3.9 X 10 ⁻⁶ K ⁻¹	3.9 X 10 ⁻⁶ K ⁻¹
	Thermal shock resistance	ISO 10545–9	Pass according to ISO 10545–1		Test method available	Resistant	Resistant
	Resistance to household chemicals and swimming pool salts		Minimum Class B		Class GA	Passed	Passed
	Resistance to low concentrations of acids and alkalis	ISO 10545–13	Value		Class GLA	—	—
	Resistance to high concentrations of acids and alkalis		Value		Class GHA	—	—
	Moisture expansion(In mm/m)	ISO 10545–10	Declared value		Test method available	≤0.72 mm/m	≤0.72 mm/m
	Frost resistance	ISO 10545–12	Pass according to ISO 10545–1		Required	Resistant	Resistant
	Impact resistance, as coefficient of restitution	ISO 10545–5	Declared value		Test method available	≥0.67	≥0.7
	Mohs hardness	EN 101	≥6(UGL)			7	7
	Bond strength/ adhesion	EN 1348	Declared value		—	N/A	N/A
	Reaction to fire		Class A1 or A1		—	A1 _s	A1 _s
	Resistance to staining	ISO 10545–14	Minimum Class 3		Test method available	Class 5	Class 5
	Coefficient of friction(COF)	B.C.R.A.Rep.CEC/81	D M 236/89 del 14/06/89			1.23Dry 1.16Wet	1.21Dry 1.19Wet
	Dynamic coefficient of friction	ANSI A137.1–2012	ANSI A.137.1 Requires a minimum value of 0.42 for commercial areas that are likely to be wet			0.71Dry 0.62Wet	0.64Dry 0.61Wet
	Static coefficient of friction(SCOF)	ASTM C1028–2007	The Ceramic Tiles Institute identifies Tile Slip Resistant when SCOF≥0.60			≥0.60Dry ≥0.60Wet	≥0.80Dry ≥0.80Wet
	Slip resistance Classification of New Pedestrian Surface Materials	AS 4586 : 2013 Appendix A	Accredited for compliance with Iso/iec 17025			P4–P5	P5
	Pendulum Friction Test	Appendix A(Four S rubber)	Declared classification of the pedestrian surface materials according to the Wet Pendulum Test			Class X	Class V
	Barefoot Ramp Test	DIN 51097 (CEN/TS 16165:Annex A)	Declared value		—	C	C
	Shod Ramp Test	DIN 51130 (CEN/TS 16165:Annex A)	Declared value		—	R9–R10	R11
	Pendulum Friction Test	BS 7976–2002(CEN/TS 16165: Annex C)	Declared value		—	PTV>64Dry PTV>38Wet	PTV>90Dry PTV>60Wet
	SRI Value (Solar reflective index)	ASTM E903 35 to 67					



May contain Recycled Materials.
www. Viewgres.com

SAFETY DATA SHEET

PORCELAIN TILE

1. PRODUCT IDENTIFICATION

Common Name: Porcelain Tile (For purposes of this SDS, the term "porcelain" encompasses all types of tile products sold by Viewgres Co., Ltd.)

Synonyms:

Manufacturer Name: ZIBO ACADIA CERAMICS CO.,LTD

Address: Headquarters Office

21st Floor, Building T5, Smart City, Jihua No.1 Road, Foshan, Guangdong, China, 528000

Emergency Assistance:

Recommended Use: Building Material - Tile products manufactured/sourced by Viewgres Co., Ltd are environmentally preferable building materials when compared to other floor/wall coverings. As defined by guidelines issued by the Environmental Protection Agency, the American Society for Testing & Materials, and the Federal Trade Commission, Tile is one of the most environmentally friendly building materials you can buy today. Should you desire additional information, please direct your inquiry to the address above.

This document has been prepared in accordance with the Occupational Safety and Health Administration (OSHA) Hazard Communication standard, 29 Code of Federal Regulations (CFR) 1910.1200(g), Safety Data Sheets.

2. HAZARDS IDENTIFICATION

Tile products are mixtures of predominantly clays, silica sand, and other natural occurring minerals that have been mixed with water and fired in a high temperature kiln. The finished, fired tiles are odorless, stable, non-flammable, and pose no immediate hazard to health. Respiratory, hand and eye protection may be needed to prevent excess exposure to airborne particulates if dust is produced by cutting tiles during installation or if dust is produced by any other operations, including demolition/removal projects.

Emergency Overview: Danger! Lung injury and Cancer Hazard

GHS Classification (Global Harmonized Standard Classification):

Carcinogenicity Category 1A (H350)

Specific target organ toxicity, single exposure; Respiratory tract irritation - Category 3 (H335)

Specific target organ toxicity, repeated exposure - Category 1A

(H372) GHS Label, Hazards and Precautionary Statements GHS

Pictogram:

Crystalline Silica:



Category 3 (Respiratory tract irritation) (H335)

Categories 1A(Carcinogenicity)(H372)

Label Signal Word: Danger

Hazard Statements:

(H350) May cause CANCER (inhalation)

(H335) May cause respiratory irritation

(H372) Causes damage to organs (lung/respiratory) through prolonged or repeated exposure (inhalation)

2. HAZARDS IDENTIFICATION (CONT)

Precautionary Statements:

Do not handle until all safety precautions have been read and understood. (P202)

Do not breathe dust/spray. (P260 + P261)

Wash skin thoroughly after handling. (P264)

Do not eat, drink or smoke when using this product. (P270)

Wear protective gloves, protective clothing, eye protection, face protection. (P280)

Potential Health Effects:

Inhalation: Do not breathe dust. See "Health Hazards" in Section 11 for more details.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Tile products are mixtures of predominately Clays, Silica Sand and other naturally-occurring minerals, that have been mixed with water and fired in a high temperature kiln.

Tiles are manufactured in various shapes, sizes, and colors.

These products do not contain asbestos.

Under normal conditions these products do not release hazardous materials after installation and are not considered hazardous waste should disposal be necessary.

Composition	% of total product by weight	Remark
Taphole clay	5.21%	
Arenaceous quartz	22.36%	
Calcined Clay	18.64%	
Wenzu Stone	3.73%	
Black clay	7.45%	
Recycled water	24.59%	Recycled material
Slag	17.14%	Recycled material
Albite	0.38%	
Calcining talc	0.07%	
Calcite	0.09%	
Kaolin	0.09%	
Zinc oxide	0.03%	
Alumina	0.06%	
Barium carbonate	0.03%	
Zirconium white frit	0.13%	
Total	100.00%	

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with large amounts of water for at least 15 minutes if dust gets in eyes. Get medical attention if irritation persists.

Skin: Wash thoroughly after working with tiles.

Inhalation: Remove to fresh air if exposed to large amounts of tile dust. Administer artificial respiration if breathing has stopped. Keep victim at rest. Call for prompt medical attention.

Ingestion: Not applicable for intact tiles.

Have emergency eyewash station available in area where tiles are cut.

5. FIRE-FIGHTING MEASURES AND INFORMATION

Flash Point (Method Used): Not applicable

Autoignition Temperature: Not applicable

Flammable Limits (% by Volume in Air): LEL - not applicable
UEL - not applicable

Fire Extinguishing Media: None required Non-flammable

Special Fire Fighting Procedures: None required

Fire and Explosion Hazards: None

6. ACCIDENTAL RELEASE MEASURES

Avoid creating excessive dust. Clean up dust with a vacuum system with a High-efficiency particulate (HEPA) air filter vacuum or damp sweeping. See Section 8 of this SDS concerning PPE information for clean-up.

7. HANDLING AND STORAGE

When cutting, grinding or removing, use equipment with integral dust collection and/or use local exhaust ventilation. Use wet cutting methods to reduce generation of dust. Use respiratory protection in the absence of effective engineering controls.

Do not store near acids. If tiles contact some acids, damage/discoloration to the surface may occur.

Shelf life is unlimited.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Exposure Table**

Composition	OSHA PEL	NIOSH IDLH	ACGIH TLV*	Units
Crystalline silica as quartz -respirable fraction	<u>10</u> %SiO ₂ +2	0.05	0.025	mg/m ³
-total dust	<u>30</u> %SiO ₂ +2	N.E.	N.E.	mg/m ³
Clays				
-respirable fraction	5	N.E.	2	
-total dust**	15	N.E.	10	
Nepheline syenite				
-respirable fraction**	5	N.E.	N.E.	
-total dust**	15	N.E.	N.E.	
Talc				
-respirable fraction	2	2	2	
-total dust**	15	10	10	mg/m ³
Feldspar				mg/m ³
-respirable fraction	N.E.	N.E.	N.E.	mg/m ³
-total dust**	15	N.E.	N.E.	mg/m ³
Biotite				mg/m ³
-respirable fraction**	5	15	3	mg/m ³
-total dust**	15	N.E.	N.E.	mg/m ³

* 2006 Edition, respirable fraction to be determined as per Appendix D of ACGIH TLV.

** Covered as particles not otherwise regulated per OSHA and particles not otherwise classified per ACGIH.

N.D. - Not determined

N.E. - Not established

8.2 EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Use adequate ventilation to keep exposure to dust below recommended exposure levels. Avoid inhalation of dust. The highest probability of silica exposure occurs during installation using dry cutting methods or during removal of installed tile. Wet cutting methods are recommended.

Respiratory Protection: Use of a properly fitted NIOSH/MSHA approved particulate respirator is recommended when cutting tiles for installation or during the removal of installed tile.

Eye Protection: Use dust-proof goggles or safety glasses with side shields. Contact lenses may absorb irritants. Do not wear contact lenses in work areas.

Skin Protection: Cotton or leather work gloves should be worn when cutting this product to minimize skin exposure to dust and/or cuts. Wash hands prior to eating, drinking, or smoking, and at the end of the work shift, after cutting operations are conducted.

NOTE: Personal protection information in Section 8 is based on general information for normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the assistance of an industrial hygienist or other qualified professional be obtained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brittle solid; color may vary
Odor:	Odorless
Melting Point:	Not Available (>2200 °F)
Boiling Point:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density (Air = 1):	Not applicable
Solubility in Water:	Insoluble
Specific Gravity (H ₂ O = 1):	1.6 to 2.1
Percent Volatile by Volume:	Not applicable
Evaporation Rate (Ethyl Ether = 1):	Not applicable
Viscosity:	Not applicable
Volatility:	0 g/L Volatile Organic Compounds

(VOCs)

10. STABILITY AND REACTIVITY

Stability: Stable in current form.
Conditions to Avoid: Avoid contact with acids (e.g., acetic, hydrofluoric, etc.) Incompatibility
(Materials to Avoid): Avoid contact with acids (e.g., acetic, hydrofluoric, etc.)
Hazardous Polymerization: Will not occur. Hazardous
Decomposition Products: None.

11. TOXICOLOGICAL INFORMATION**Potential Health Effects****Primary Routes of Exposure**

None for intact tile. Inhalation and potential exposure to eyes, hands, or other body parts if contact is made with broken tile, and/or during procedures involving the cutting of tiles, and/or for operations involving the removal of installed tiles.

Acute Effects

No acute effects from exposure to intact tile are known. Working with broken or cut tile produces a potential for cuts to the hands and exposed body parts. Acute effects such as eye irritation may occur if associated with high dust operations such as dry cutting tile or during the removal of installed tile. In very rare cases, symptoms of acute silicosis, a form of silicosis (a nodular pulmonary fibrosis) associated with exposure to respirable crystalline silica, may develop following acute exposure to extremely dusty environments caused by generation of tile dust. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can arise from many other causes.

Chronic Effects

No chronic effects are known for exposure to intact tile. Long-term, continual exposure to respirable crystalline silica at or above established permissible occupational exposure limits may lead to the development of silicosis, a nodular pulmonary fibrosis (NPF). NPFs are also associated with pulmonary tuberculosis, bronchitis, emphysema, and other airway diseases. This type of chronic exposure to silica dust may also result in the development of autoimmune disorders, chronic renal disease, and other adverse health effects. Recent epidemiologic studies demonstrate that workers exposed to elevated silica concentrations have a significant risk of developing chronic silicosis. Signs such as labored breathing and early fatigue may indicate silicosis; however, these same symptoms can also arise from many other causes.

Potential Adverse Interactions

Silicosis may be complicated by severe mycobacterial or fungal infections and result in tuberculosis (TB). Epidemiologic studies have established that silicosis is a risk factor for developing TB. Any existing respiratory or pulmonary diseases may be complicated by exposure to respirable crystalline silica. Smoking may increase the risk of adverse effects if done in conjunction with occupational exposure to silica dust at or above permissible exposure limits.

Carcinogen Status

Respirable crystalline silica is classified by the International Agency for Research on Cancer (IARC) as a Group I Carcinogen (carcinogenic to humans). The National Toxicology Program (9th Report) lists respirable crystalline silica as "Known to be a Human Carcinogen". USDOL/OSHA and NIOSH have recommended that crystalline silica be considered a potential occupational carcinogen.

Overview of Animal Testing

Short term experimental studies of rats have found that intratracheal instillation of quartz particles leads to the formation of discrete silicotic nodules in rats, mice and hamsters.

Oral (silica) Lethality

LD50 Rat oral >22,500 mg/kg
LD50 Mouse oral >15,000 mg/kg
LC50 Carp >10,000 mg/l (per 72 hr.)

12. ECOLOGICAL INFORMATION

No information available at this time.

13. DISPOSAL CONSIDERATIONS

Waste should be disposed of in a landfill certified to accept such materials in accordance with federal, state, and local regulations.

14. TRANSPORTATION INFORMATION

D.O.T Shipping Name: Not applicable
Hazard Class: Non-regulated (for disposal purposes material is non-hazardous Class III regulated material)
ID Number: Not applicable
Marking: Not applicable

Label: None
 Placard: None
 Hazardous Substance/RQ: Not applicable
 Shipping Description: Porcelain/Ceramic Tiles
 Packaging References: None

15. REGULATORY INFORMATION

This product and/or its components have been previously introduced into U.S. commerce and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals in Commerce. Hence, it is subject to all applicable provisions and restrictions under TSCA 40 CFR Section 721 and 723.250.

This tile contains <1 percent by weight each of the following elements, which are SARA 313 Recordable: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Chromium, Copper, Manganese, Mercury, Nickel, Lead, Silver, Thallium, Tin, Titanium, Vanadium, and Zinc.

Title 22 Division 2, California Code of Regulation Chapter 3 (Proposition 65): This product contains a chemical or chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

This product or its components meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

<input type="checkbox"/> Combustible Liquid	<input type="checkbox"/> Flammable Aerosol	<input type="checkbox"/> Oxidizer
<input type="checkbox"/> Compressed	<input type="checkbox"/> GasExplosivePyrophoric	<input type="checkbox"/>
<input type="checkbox"/> Flammable Gas	<input checked="" type="checkbox"/> Health Hazard (Sections 3 & 11)	<input type="checkbox"/> Unstable
<input type="checkbox"/> Flammable LiquidOrganic	<input type="checkbox"/> PeroxideWater Reactive	<input type="checkbox"/>
<input type="checkbox"/> Flammable Solid		

☐ Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

Note: The information in this data sheet provides information related to the potential hazards associated with dusts which may be produced during cutting or otherwise changing the shape of the tile during installation and/or removal.

16. ADDITIONAL INFORMATION

Global Harmonization Identification System

GHIS:	Health: 3	Fire: 4	Reactivity:
			4

Hazardous Material Identification System

HMIS:	Health: 0	Fire: 0	Reactivity:
			0

National Fire Protection Association

NFPA:	Health: 0	Fire: 0	Reactivity:
			0