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SUBMITTAL FOR APPROVAL

DATE: April 13, 2022
SUBMITTAL NO.: **001**

PROJECT: **THE ATRIUM CONDOS**
19945 Brydon Crescent, Langley BC

TO: CHYSIK PROJECT MANAGEMENT (2014)
LTD.
15095 Royal Avenue, White Rock, BC
V4B 1M1

FROM: FRIESEN FLOORS

PROJ. CONTACT: CHARLIE HALL
Project Manager

CONTACT: Jinyoung Choi

SUBMITTAL DETAILS

Please see attached Specification/Data Sheets for the materials listed below. Please review.

PROJECT CODE	MATERIALS DESCRIPTION	ATTACHMENT	PAGES
Flextile WP-900	Waterproof Membrane	TDS	2-4
		SDS	6-10
Flextile #55 LHT	Thinset	TDS	11-12
		SDS	13-19
Flextile #200 Multi-Purpose	Mastic	TDS	20-21
		SDS	22-27

Thank you.

WP-900

HYDRO-BLOC WATERPROOF & CRACK ISOLATION MEMBRANE

PRODUCT DESCRIPTION

WP-900 is a one-component, flexible, load bearing waterproofing latex compound applied by paint roller or quality paint brush to form a seamless waterproof membrane under ceramic tile and stone installations. WP-900 also acts as a crack isolation membrane for these same types of applications.

It may also be applied with optional reinforcing fabric for extra reinforcement when detailing over cracks, in corner or backerboard panel joints, or other critical locations.

WP-900 is fast curing – flooring can be installed in 1 – 2 hours depending on site environment and substrate porosity, and flood testing may be effected after 24 hours.

BASIC USES

As a Waterproof Membrane: For use under all ceramic tile and stone installations where a waterproof surface is required. Ideal for all wet areas such as bathrooms, showers, spas & steam rooms, fountains, pools, countertops, etc. Suitable substrates include interior or exterior surfaces of concrete (at least 28 days old), concrete block and masonry, cement mortar beds or levelling compounds (at least 3 days old), cement backer units, existing surfaces of ceramic tile or terrazzo, gypsum wallboard (walls only, in approved application areas only) and exterior-grade plywood (for interior residential floors and countertops in dry areas only). As a Crack Isolation Membrane: For interior use, over shrinkage or non-structural in-plane movement cracks up to 3 mm (1/8"). Ideal for use over concrete or concrete-based underlayments, and to cover plywood and concrete backer unit joints.

COMPOSITION AND MATERIALS

A one component system consisting of an elastomeric latex compound applied by paint roller or quality paintbrush. Designed for optimum adhesion to most tile-setting substrates.

FEATURES

- With *Flexfresh™* technology. Revolutionary technology that helps to inhibit the growth of mildew, fungus and other bacteria causing odours and stains in construction materials.
- Exceeds ANSI A118.10 and ANSI A118.12 standards.
- Interior and exterior waterproofing tile installation applications.
- VOC-Free - Meets LEEDv4 requirements

- Bridges shrinkage cracks or other non-structural in-plane cracks up to 3 mm (1/8").
- Easy to apply - just roll or brush on.
- Cleans up with water while still wet
- Low odor & solvent free
- Rated as suitable for Extra Heavy service on concrete substrates per ASTM C627-70

TECHNICAL DATA

Exceeds ANSI A118.10 and ANSI A118.12 standards

Typical Physical Properties

Colour:	Light green when wet; dark green when dry
Weight:	1,3 kg per L. (10.9 lbs. per U.S. gal)
Permeability:	0.4 perms
ASTM E96 / E96M-05	22 (ng/Pa-s-m ²)
Procedure B	
Water Vapour Transmission	0.22 g/h-m ²
ASTM E96 / E 96M - 05	
Procedure B	
Hydrostatic Resistance:	passes
Flash point:	Nonflammable
Cleanability:	With water while still wet
Dry time (before tiling):	Approx. 1-2 hrs. (when dry to touch)
Final dry thickness:	(2 coats) approx. 20-30 mils
Dry time:	(before flood-testing for shower enclosures) After 24 hours. (at normal thickness & room temperature)
Storage:	Store in cool, dry place. Protect from freezing.
Shelf Life:	1 year in unopened container stored in heated conditions

COVERAGE DATA

Single coat thickness (wet) should be 0.4 to 0.6 mm (17 to 22 mil) Final thickness (dry) of all coats should be approximately 0.5 to 0.75 mm (20 – 30 mils)

Use a wet film thickness gauge to check thickness during application.

Approximate Coverage for full application:

4 L: 4.64 m² (50 ft²) 20 L: 23.2 m² (250 ft²)

• Coverages given are for estimating purposes only. Actual coverages may vary depending on job site conditions and installation techniques used.



Certified VOC-Free
USGBC LEED v4, BD&C, ID&C



LEED Points Contribution	LEED Points
MR Credit 5, Regional Materials*	Up to 2 points
IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants	1 point
IEQ Credit 4.3, Low-Emitting Materials – Flooring Systems	1 point

*May be eligible

LIMITATIONS

Not for use as an exposed traffic surface. Do not expose uncovered membrane to traffic, water or direct sunlight until fully cured. Not recommended for use as a roofing membrane over occupied areas, or on unstable surfaces such as chipboard, Masonite, metal, etc. Not recommended under negative hydrostatic conditions. Do not use where excessive substrate moisture and/or where negative hydrostatic pressure exists. Maximum allowable moisture is 1.36 kg / 92.9 m² (3 lb / 1000 ft²) per 24 hours. When using as a crack isolation membrane, do not cover existing control or expansion joints - refer to appropriate detail for installation over these joints in current editions of TTMAC or TCNA Ceramic Tile Installation Handbooks. Contact Flextile's technical department for detail recommendations for Movement Joints when applying as an integral waterproofing layer. Not for use over structural movement cracks. Use only on surfaces which are maintained above 10°C (50°F) during application and for at least 48 hours after application.

PREPARATORY WORK

All surfaces must be clean, even, dry and free of grease, oil, loose paint, curing compounds or sealers, protuberances that may puncture cured membrane, or other foreign matter. Existing concrete surfaces which have been shot blasted, ground or sanded to remove contaminants must be thoroughly cleaned of dust, loose concrete, etc. prior to applying membrane. Surfaces should be maintained at a temperature between 10°C (50°F) and 32°C (90°F) when applying membrane. New concrete surfaces must be fully cured, dry (maximum allowable moisture is 1.36 kg / 92.9 m² (3 lb / 1000 ft²) per 24 hours) finished to a wood float or light broom finish, and be true to within 6 mm (1/4") in 3 m (10').

Apply a latex modified scratch coat consisting of Flextile 57 Scratch Coat Mortar mixed with Flextile 43 or 44 Latex Additive to existing concrete surfaces where abrasion cannot produce a porous enough surface, to uneven surfaces, and to all smooth-troweled concrete surfaces prior to applying WP-900 membrane

Gaps in pipe penetrations should be packed with compressible backer rod and urethane-based sealant. Pre-treat all control joints and gaps in corners and coves that are greater than 1 mm (1/32") with proper filler material and allow to cure. Fill all openings and spaces around drains and pipes with foam backer material and urethane sealant. Remove drain flanges and apply liberal coat of WP-900 over and around the drain flange. Apply liberal coat of WP-900 around pipes. Allow to dry then apply a second liberal coat. Allow to dry. Apply bead of urethane sealant around drain flange, pipes or other penetrations, to join with the WP-900

system seam. All construction, expansion and isolation joints designed into the substrate must be carried through the tile installation. Refer to appropriate detail for installation over these joints in current editions of TTMAC or TCNA Ceramic Tile Installation Handbooks, or **contact Flextile's technical department for detail recommendations for all Movement Joints when applying as an integral waterproofing layer.**

APPLICATION

WP-900 is pre-mixed and ready to use. WP-900 may be applied by brush or heavy nap 10 mm (3/8") paint roller. Prior to applying to general surface area, pre-treat all cracks, joints, corners and coves first, by applying a generous coat of WP-900 latex compound approximately 10 cm (4") to each side of joint or surface. Allow to dry to the touch (colour will turn Dark Green), and then apply a second coat of WP-900 latex compound to same area, again allowing to dry. Once pre-treated areas are dry (Dark Green), apply a generous coat of WP900 latex compound to entire surface, included pre-treated cracks, joints, and coves, and allow to dry. DO NOT skimp on initial coat of latex compound. Allow to dry to the touch, before applying a final coat to entire surface. Final dry thickness of first and second coats should be a minimum of 20 to 40 mils (0.5 – 1.0 mm). Inspect entire area and, if required, reapply on required areas, and allow it to dry. Once entire installation turns darker green and is dry to the touch (approximately 1 – 2 hours), tile may be installed using approved Flextile Latex Portland Cement Mortars. Flood tests (per ASTM D5957-98 - 2005) to be effected prior to installing finished flooring surface installations, where required.

OPTIONAL USE OF REINFORCING FABRIC

To reinforce over cracks, joints, corners, coves, floor or wall penetrations, around drains or main area to be waterproofed. The use of reinforcing fabric to reinforce cracks, joints, corners, around drains etc. in pools is mandatory. Cut fabric to required sizes and place aside. Measure and pre-cut fabric to cover entire length of cracks etc. and at least 1 tile width of each side of crack (20 cm (8") minimum).

Apply a generous coat of WP-900 latex compound slightly wider than the fabric to be used over crack, with a brush or roller. Embed reinforcing fabric into wet latex compound with a roller or brush so that latex bleeds through fabric. Once fabric is thoroughly embedded, apply a second coat of latex compound to create a void free membrane, and allow to dry. Apply a final coat of latex compound to entirely cover the fabric.

CURING AND TILE INSTALLATION

Final coat of WP-900 must be dry to the touch and dark green in colour prior to installation of tile flooring. Approximate drying time is 1 – 2 hours at 20°C (70°F) with 50% Relative Humidity. Flood tests are required prior to installing finished flooring surface in critical installations. WP-900 should be cured for at least 24 hours at room temperature prior to conducting flood test. For tile and stone installations use appropriate Flextile latex-modified mortars (ANSI A118.4- 1992). Refer to Flextile's product data sheets and current TTMAC or TCNA installation handbooks for product recommendations and installation procedures.



■ SAFETY

Refer to Flextile Safety Data Sheet for detailed health and safety information.

■ AVAILABILITY

WP-900 is available from Flextile Ltd. and listed distributors in units of 20 L (5.3 U.S. gals.), and 4 L (1.06 U.S. gals.).

OPTIONAL REINFORCING FABRIC

23.2 m² (76 cm X 30.5 m) (30 in. X 100 ft (250 sf))

4.7 m² (76 cm X 6.1 m) (30 in. X 20 ft (50 sf))

2.9 m² (19 cm X 15.2 m) (7.5 in. X 50 ft (31.25 sf))

■ WARRANTY

Flextile warrants that this product is of merchantable quality and is suitable for the purpose for which it is intended. Flextile's liability under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price.

■ MAINTENANCE

No maintenance is required except where damages result from unforeseen circumstances. Repair procedures shall be directed by Flextile or its distributors.

■ TECHNICAL SERVICES

Flextile maintains a well-equipped laboratory able to test its products in conjunction with the products with which they are used. Technical assistance for use of Flextile products is available upon request.

■ RELATED REFERENCES

Current editions of TTMAC 09 30 00 & TCNA Ceramic Tile Installation Manuals.

■ RECOMMENDED USES

- Waterproofing ceramic tile or stone installations
- Commercial or residential use
- Tubs, shower pans, interior or exterior pools, fountains, etc.
- Vertical or horizontal applications
- Exterior ceramic tile cladding
- Over concrete or masonry surfaces
- Over concrete backer units
- On exterior decks or balconies Δ
- Over plywood or gypsum wallboard ¥
- Over existing ceramic tile surfaces
- Over in-floor heating systems ¥S
- Over floor leveling systems S
- Over shrinkage or other non structural cracks in concrete substrates ¥
- Over CBU or plywood sheet joints ¥

¥ *Interior use only*

S *Some gypsum-based leveling systems may not be acceptable. Check with Flextile Ltd.*

Δ *Refer to TTMAC 09 30 00 detail 325F-2002 detail for exterior decks*

■ NOT RECOMMENDED

- As an exposed traffic surface
- As an exposed membrane surface
- As a primary roofing membrane over occupied areas
- For use under negative hydrostatic conditions
- Over existing expansion or control joints
- Over structural movement cracks
- Over metal, particle board, chip board or other surfaces considered unacceptable for ceramic tile or stone installations



Notice: The information herein is the best information we have relating to our products and the recommended uses of our products are based on tests believed to be reliable. Flextile warrants each of its products is of merchantable quality and suitable for the purpose for which it is intended BUT DOES NOT MAKE ANY OTHER WARRANTY, EXPRESSED OR IMPLIED. This Warranty may not be enlarged or extended by our sales representatives, written sales information or drawings. Liability of Flextile under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price. All advice given and structural specifications supplied by Flextile representatives shall be used at the sole risk of those receiving the same and Flextile assumes no responsibility for the design or construction of any works in which its products are used. Any review or inspection of plans, buildings or product applications by Flextile representatives is not to be construed as approval thereof by Flextile. This information supersedes all previous issues and is subject to change without notice.

Safety Data Sheet

WP 900

SECTION 1: IDENTIFICATION

Product: WP 900

Product Use: Waterproof and crack isolation membrane

Manufacturer Information:

Ontario

111 Royal Group Crescent

Vaughan, On

L4H 1X9

Tel: (416) 255-1111

Fax: (416) 255-1729

British Columbia

2829 Lake City Way

Burnaby, BC

V5A 2Z6

Tel: (644) 420-4914

Fax: (604) 420-0936

IN CASE OF EMERGENCY CALL CANUTEC (613) 996-6666

SECTION 2: HAZARDS IDENTIFICATION

Classification of the chemical

No specific hazards are encountered under normal product use.

GHS Signal Word

Danger

GHS Classification:

Skin corrosion / irritation

Category 1 Causes skin irritation

Serious eye damage / eye irritation

Category 1 Causes serious eye damage

Skin sensitization

Category 1 May cause an allergic skin reaction

GHS hazard statements

Causes skin irritation may cause an allergic skin reaction, causes serious eye damage; may cause respiratory irritation; may cause cancer; causes damage to organs through prolonged or repeated exposure.

GHS Precautions

P202

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

P260

Do not breathe dust.

P264

Wash skin thoroughly after handling.

P270

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

P272

Contaminated work clothing should not be allowed out of the workplace.

P280

Wear protective gloves and eye protection.

P302+P352.A

If on skin: Wash with plenty of water.

P305+P351+P338

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501

Dispose of contents/container in accordance with applicable regulations.

ADDITIONAL INFORMATION

Hazards not otherwise classified identified during the classification process:

None

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not present a dust hazard; therefore, this classification is not relevant for this product in liquid or paste form.

Safety Data Sheet

WP 900

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Name	% By Weight	CAS No.	Classification
Calcium Carbonate	10 - 15	1317-65-3	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3 H335
Silica Sand, Crystalline quartz	0.1 – 1.0	14808-60-7	Carc. 1A, H350 STOT RE 1, H372

SECTION 4: FIRST AID MEASURES

General In case of accident or unwellness, seek medical attention immediately.

Eye Contact Flush eyes and contaminated skin with abundant water. Seek medical attention immediately.

Skin Contact Remove contaminated clothing immediately. Wash skin immediately with soap and abundant water.

If Ingested Do not induce vomiting. Drink plenty of water or milk to dilute. Do not give anything by mouth to an unconscious person. Seek medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media	Water spray, carbon dioxide, dry chemical or foam
Unsuitable Extinguishing Media	None in particular
Hazardous Combustion Products	Do not inhale explosion and combustion gases
Explosive Properties	N/A
Oxidizing Properties	N/A
Special Firefighting Procedures	Wear standard fire fighting gear with self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Special Protection Wear personal protective equipment.

Protective Equipment Refer to Section 8 on this Safety Data Sheet for appropriate personal protection equipment.

Spill Clean Up Directions Pick up solids. Mop up or absorb with an inert material. Scrape up and dispose into a disposal container. Suitable material for absorbing material, sand.

Waste Disposal Dispose of in accordance with local, state and federal regulations.

Environmental Precautions Do not allow product to enter drains or waterways. Do not allow material to contaminate ground water system. Refer to Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Wear personal protective equipment. Avoid contact with skin and eyes, inhalation of vapours and mists.

Contaminated clothing should be changed before entering eating areas. Do not eat or drink in work areas.

Do not use any empty containers before they are cleaned.

Protective equipment Refer to Section 8 on this Safety Data Sheet for appropriate personal protection equipment.

Keep containers tightly closed when not in use. Wash thoroughly after handling.

Storage Store in a cool, adequately ventilated, dry area, avoid freezing.

Safety Data Sheet

WP 900

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	CAS No.	ACGIH TLV	OSHA PEL
Silica Sand, Crystalline Quartz	14808-60-7	0.025 mg/m ³ TWA (respirable fraction)	0.1 mg/m ³ TWA (respirable)
Calcium Carbonate	1317-65-3	10 mg/m ³ TWA	5 mg/m ³ TWA (respirable)

ENGINEERING CONTROL METHODS:

Eye Protection Wear safety glasses with side shields

Skin Protection Avoid skin contact by wearing proper work gloves and long sleeved shirt.

Hand Protection Use protective gloves that provide comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory Protection N.A.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Slightly Viscous liquid
Odour and appearance	Green liquid, Latex odour.
Odour threshold	N/A
Specific gravity	1.1 - 1.2
Vapour pressure	N/A
Vapour density (air=1)	N/A
Evaporation rate	As for water
Boiling point	100°C (212°F)
Freezing point	N/D
pH	8 - 9
Flash point	>100°C (212°F)
Upper/Lower flammability or explosive limits	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Explosive properties	N/A
Oxidizing properties	N/A
Solubility in water	Dispersable
Solubility in oil	N/D
Octanol/Water coefficient	N/D
Calculated VOC content	0 g/l

Safety Data Sheet

WP 900

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Will not occur
Chemical stability	Stable
Incompatible materials	N/D
Conditions to avoid	Stable under normal conditions
Hazardous decomposition products	CO, CO ₂ and fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information based on the individual components.

Chemical Name	CAS No.	LD50/LC50
Silica Sand, Crystalline Quartz	14808-60-7	Oral LD50 (rat) 500 mg/kg
Calcium Carbonate	1317-65-3	Oral LD50 6450 mg/kg (rat)

Routes of entry skin contact, eye contact, ingestion.

Effects of acute exposure irritate the eyes. Ingestion can cause irritation of the throat.

Acute toxicity	N/A.
Skin corrosion	N/A
Serious eye damage / irritation	Can cause moderate irritation
Respiratory or skin sensitization	N/A
Germ cell mutagenicity	No data available.
Carcinogenicity	This product contains crystalline silica. Crystalline silica (respirable size) is classified as carcinogenic by inhalation by: IARC (Group 1), ACGIH (Group A2), NTP (Group 1), OSHA (Select carcinogen).
Reproductive toxicity	No data available
STOT-single exposure	N/A
STOT-repeated exposure	N/A
Aspiration hazard	N/A

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	N/A
Persistence and degradability	N/A
Bioaccumulative potential	N/A
Mobility in soil	N/A
Other adverse effects	N/A
List of components with eco-toxicological properties	
Silica Sand	LC50 Aquatic acute toxicity carp > 10,000 mg/L 72h

SECTION 13: DISPOSAL CONSIDERATIONS

Handling for disposal Handle waste as per recommendations in Section 7.

Safety Data Sheet

WP 900

Dispose of in an approved landfill. Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

Canadian TDG : not regulated

US DOT: not regulated

IATA: not regulated

SECTION 15: REGULATORY INFORMATION

Canadian Information:

Canadian WHMIS Classification: This product is not a WHMIS Controlled Product.

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above the minimum concentrations.

U.S. State Right To Know Laws

California Proposition 65:

Warning! This product contains a chemical known to the State of California to cause cancer. It contains Crystalline silica, quartz.

Other State Right to Know Law:

MA Limestone, Crystalline Silica, Quartz

NJ Limestone, Crystalline Silica, Quartz

PA Limestone, Crystalline Silica, Quartz

MN Limestone, Crystalline Silica, Quartz

RI Limestone, Crystalline Silica, Quartz

SECTION 16: OTHER INFORMATION

This Safety Data Sheet is prepared to comply with the Canadian Workplace Hazardous Materials Information System (WHMIS) and the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

HMIS rating: Health -- 1 Flammability -- 1 Reactivity -- 0

See **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION** for personal protective equipment recommendations.

PREPARATION DATE OF SAFETY DATA SHEET

Prepared by Technical department

Phone number of preparer (416) 255-1111 FAX: (416) 255-1729

Date prepared 17th March, 2017

Safety Data Sheet

WP 900

Flextile Ltd. assumes no responsibility for injury to consumer or third persons caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Flextile Ltd. assumes no responsibility for injury to consumer or third persons caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, consumer assumes the risk in use of the material.

The information and recommends set forth herein are believed to be accurate as some of the information is derived from information provided to Flextile Ltd. from suppliers and because Flextile Ltd. has no control over the conditions of handling and use. Flextile Ltd. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Flextile Ltd. assumes no responsibility for use or reliance thereon. It is the responsibility of the user to comply with all applicable federal, provincial, state, and local laws and regulations.

55LHT

POLYMER-MODIFIED LHT MORTAR

DESCRIPTION

Flextile 55LHT is a Polymer Modified Large Heavy Tile (LHT) Mortar, designed specifically for both thin or medium-bed wall, floor installation of large format tile and stone. Flextile 55LHT provides excellent sag resistance and mortar transfer to backs of larger format tile & stone on vertical applications, as well as superior tile support and mortar transfer on horizontal applications. A formula which includes high-performance polymers and water retention additives, carefully graded sands, Portland cement, and special non-sag additives contributes to the unique characteristics of Flextile 55LHT. Available in Grey & White.

BASIC USES

Installation of large format porcelain, ceramic, mosaic, quarry and paver tiles, or natural stone such as marble, granite, slate and precast terrazzo tile on horizontal surfaces where superior mortar transfer to backs of tile and support for large, heavy tile is required.

RECOMMENDED SURFACES

- Installation over concrete, masonry, approved tile backer boards.
- Installation over cement mortar beds or levelling compounds.
- Existing surfaces of properly prepared ceramic tile, stone, or cement terrazzo.
- Exterior Grade Plywood or Gypsum Board - in interior dry areas only
- Existing surfaces of properly prepared non-cushion sheet vinyl flooring, VCT, or cutback adhesive residue. *
- Flextile waterproofing, crack-isolation and sound reduction membranes.

* Check with Flextile Ltd. as to acceptability of specific surfaces

FEATURES

- Excellent for non-sag, thin or medium bed installations of large dimension, heavy tile and stone on both vertical or horizontal surfaces.
- Excellent movement capability and bond strength.
- Contributes to LEED certification.
- For interior and exterior floor and wall installations.
- Easy to use - just mix with water and apply.
- Promotes better mortar transfer to backs of large format or heavily lugged tile, ensuring adequate coverage - ideal for use with mechanical tile-leveling systems.
- Supports large format tile, reducing lippage.
- Excellent workability.
- Rated as suitable for Extra Heavy Service by ASTM C627-70 on concrete substrates.
- Rated as a light performance commercial and residential mortar by ASTM C627-70 on plywood substrates.

LIMITATIONS

- Do not use over particleboard, Masonite, chipboard, OSB or similar unstable materials.
- Do not use over cushioned resilient flooring, rubber, plastic, paint, asphalt, or plywood surfaces in wet areas.
- Do not use directly over single layer plywood floors.
- Use only on surfaces which are maintained at a temperature above 10°C (50°F) and below 35°C (95°F) during application and for at least 72 hours after application.
- On exterior applications, protect from rain until thoroughly dried and protect from freezing for at least 14 days after installation.
- When installing light-coloured stones and translucent marble use Flextile 55LHT White.
- To use directly over gypsum-based patching or leveling substrates, apply suitable primer before use.
- Installations over nonporous surfaces may require extended setting/curing times.
- Consult local building code requirements for use on exterior commercial building facades.
- For heavy service exterior or water immersion applications, or where extreme freeze/thaw conditions are present, use Flextile 5400 Maxi-Flex or Flextile 51/44 or Flextile 58XT Fast Set high solids, two-component latex Portland cement mortar systems.
- Do not use for moisture-sensitive stone such as green marble, certain limestone and granite, agglomerate tiles, cultured marble or resin-backed tiles. Instead, use FlexEpoxy 100 mortar.

TECHNICAL DATA at 23°C (73°F) and 50% humidity)

Exceeds ANSI A118.4 and A118.11 specification requirements

Description	ANSI SPEC. MPa (psi)	TYPICAL RESULT MPa (psi)
28 Day Shear Strength		
Glazed Wall Tile	> 2.07 (300)	3.11 to 4.14 (450 to 600)
Impervious Ceramic Tile (Porcelain) Mosaics	> 1.38 (200)	2.59 to 3.45 (375 to 500)
Quarry Tile	> 1.03 (150)	2.42 to 3.45 (350 to 500)
Quarry Tile / Plywood	> 1.03 (150)	1.21 to 1.79 (175 to 250)
Typical Physical Properties		
Pot Life	2 hours	
Open Time	20 minutes	
Initial Cure	24-48 hours	
Final Cure	28 days	
Cleanability:	With water before material dries	
VOCs	0 g/L	
Shelf Life:	1 year from production date when stored in dry, heated conditions	



Approx. coverage per 22.7 kg (50 lb) bag:6 mm x 10 mm (1/4" x 3/8") - square-notch trowel - 5.5 m² (60 ft²)10 mm x 10 mm (3/8" x 3/8") - square-notch trowel - 4.1 m² (45 ft²)19 mm x 14 mm (3/4" x 9/16") - round-notch trowel - 2.8 m² (30 ft²)** Coverages given are for estimating purposes only. Actual coverages may vary depending on job site conditions and installation techniques used.***LEED Points Contribution**

MR Credit 5, Regional Materials*

IEQ Credit 4.1, Low-Emitting

Materials – Adhesives & Sealants

IEQ Credit 4.3, Low-Emitting

Materials – Flooring Systems

May be eligible*LEED Points**

Up to 2 points

1 point

1 point

INSTALLATION**PREPARATORY WORK**

Surfaces must be sound, even, dry and free of grease, oil, dirt, paint, curing compounds or sealers, or other foreign matter. Surfaces must be true to a tolerance of ±3 mm (1/8") in 2.4 meters (8 ft.) for walls and 6mm (1/4") in 3 meters (10 ft.) for floors. Concrete surfaces should have a wood float or steel trowel with light broom finish. Roughen smooth concrete surfaces. Plywood floors should be designed for maximum deflection of L/360 of span. This normally requires an overlay of 16 mm (5/8") exterior grade plywood over 25 mm (1") nominal boards or 16 mm (5/8") plywood when on joists 40 cm (16") O.C. Fasten overlay with screw type nails and glue where possible. Leave a 3 mm - 6 mm (1/8"-1/4") gap between sheets of overlay and next to all vertical surfaces to allow for expansion. Refer to current editions of TTMAC 09 30 00 Tile Installation Manual, or TCNA Handbook For Ceramic Tile Installation for information regarding placement of movement or expansion joints, or for further substrate acceptability information.

APPLICATION

Mix with approximately 5.2 - 5.9 Litres (1.4 - 2.4 U.S. gals) of water per 22.7 kg (50 lb) bag. Avoid using high-speed mixers. Allow mixed mortar to slake for at least 10 minutes, then re-mix without adding further material or water. Spread a thin layer of mixed mortar with flat side of trowel to wet out the substrate; then reapply sufficient material with a suitably notched trowel that will leave enough mortar to give at least 85% (Interior applications) or 95% (Exterior applications) coverage to the backs of tile. It may be necessary to back-butter in order to reach these requirements. (Refer to ANSI A108.5 specifications, TTMAC and TNCA guidelines.) It is imperative that an appropriately sized trowel is used in conjunction with larger format tile or stone, so that adequate coverage is achieved. Comb that area which can be covered with tile before skinning occurs. Mortar should be troweled with notches running in straight, parallel lines. Press or beat in tile while moving slightly in the opposite direction of troweled mortar ridges, to achieve maximum coverage. Do not adjust tiles after they have been set for more than 25 minutes.

CURING AND GROUTING

Protect from all traffic and delay grouting until cured at least 24 hours, and preferably 48 hours. On exterior or cold weather applications, or when a larger format or impervious tile is installed over an impervious membrane, extended curing is recommended to ensure that mortar is sufficiently cured prior to grouting. Do not allow heavy traffic for at least 5 days following installation, and do not allow heavy construction equipment such as scissor lifts, etc. for a minimum of 14 days following installation. Protection of installation with 13 mm (1/2") plywood sheets prior to allowing heavy construction equipment is recommended until installation is fully cured. Grout using Flextile Polymer Modified Grout, Flextile 1600UPG Ultra Performance Grout or Flextile FlexEpoxy100 - 100% Solids Epoxy Grout.

CAUTION

Freshly mixed cement, mortar, concrete or grout may cause skin injury. Avoid extended contact with skin where possible and wash exposed skin areas promptly with water. If any cement or cement mixtures get into the eye, rinse immediately and repeatedly with water and get prompt medical attention. Keep out of reach of children.

SAFETY

Refer to Flextile Safety Data Sheet for detailed health and safety information.

AVAILABILITY

Flextile 55LHT is available from Flextile Ltd. and its distributors in 22.7 kg (50 lb) bags. Available in Grey & White formulas.

WARRANTY

Flextile warrants that this product is of merchantable quality and is suitable for the purpose for which it is intended. Flextile's liability under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price.

MAINTENANCE

No maintenance is required except where damages result from unforeseen circumstances. Repair procedures shall be directed by Flextile or its distributors.

TECHNICAL SERVICES

Flextile maintains a well-equipped laboratory able to test its products in conjunction with the products with which they are used. Technical assistance for use of Flextile products is available upon request.

RELATED REFERENCES

Current editions of TTMAC 09 30 00 & TCNA Ceramic Tile Installation Manuals.



Notice: The information herein is the best information we have relating to our products and the recommended uses of our products are based on tests believed to be reliable. Flextile warrants each of its products is of merchantable quality and suitable for the purpose for which it is intended BUT DOES NOT MAKE ANY OTHER WARRANTY, EXPRESSED OR IMPLIED. This Warranty may not be enlarged or extended by our sales representatives, written sales information or drawings. Liability of Flextile under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price. All advice given and structural specifications supplied by Flextile representatives shall be used at the sole risk of those receiving the same and Flextile assumes no responsibility for the design or construction of any works in which its products are used. Any review or inspection of plans, buildings or product applications by Flextile representatives is not to be construed as approval thereof by Flextile. This information supersedes all previous issues and is subject to change without notice.

Safety Data Sheet

55 LHT

SECTION 1: IDENTIFICATION

Product: 55 LHT

Product Use: Sag-Resistant Polymer-Modified Mortar

Manufacturer Information:

Ontario

111 Royal Group Cr.
Vaughan, ON.
L4H 1X9
Tel: (416) 255-1111
Fax: (416) 255-1729

British Columbia

2829 Lake City Way
Burnaby, B.C.
V5A 2Z6
Tel: (644) 420-4914
Fax: (604) 420-0936

IN CASE OF EMERGENCY CALL CANUTEC (613) 996-6666

SECTION 2: HAZARDS IDENTIFICATION

Classification of the chemical

WHMIS Classification

Class D2A, D2B, E



GHS Signal Word

GHS Classification:

Skin corrosion / irritation
Serious eye damage / eye irritation
Skin Sensitization
Carcinogenicity
Specific Target Organ Systemic Toxicity (STOT) SE
Specific Target Organ Systemic Toxicity (STOT) RE

GHS Hazard Statements

GHS Hazard Statements

H315
H317
H318
H335
H350
H372

Danger

Category 1 Causes skin irritation
Category 1 Causes serious eye damage
Category 1 May cause an allergic skin reaction
SECategory 1A May cause cancer if inhaled
Category 3 May cause respiratory irritation
Category 1 Causes damage to organs through prolonged exposure if inhaled
Causes skin irritation, may cause an allergic skin reaction, causes serious eye damage; may cause respiratory irritation; may cause cancer; causes damage to organs through prolonged or repeated exposure.

Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
May cause respiratory irritation.
May cause cancer if inhaled.
Causes damage to organs through prolonged or repeated exposure if inhaled.

Safety Data Sheet

55 LHT

GHS Precautions

Code	Description
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves and eye protection.
P302+P352.A	If on skin: Wash with plenty of water.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	If exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER.
P312	Call a POISON CENTER if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P321.A	Specific treatment (see supplementary instructions on this label)
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with applicable regulations.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Name	% by Weight	CAS No.	Classification
Silica Sand, Crystalline quartz	50 - 55	14808-60-7	Carc. 1A, H350 STOT RE 1, H372
Portland Cement	30 - 40	65997-15-1	Eye damage 1, H318 Skin irritant 2, H315 Skin sensitizer 1, H317 STOT SE 3, H335
Calcium Carbonate	5 - 10	1317-65-3	Skin irritant 2, H315 Eye irritant 2B, H320 STOT SE 3, H335
Calcium Formate	0.2 - 5.0	544-17-2	Eye damage 1, H318

Safety Data Sheet

55 LHT

SECTION 4: FIRST AID MEASURES

General In case of accident or illness, seek medical attention immediately.

Eye Contact Flush eyes and contaminated skin with abundant water. Seek medical attention immediately.

Skin Contact Remove contaminated clothing immediately. Wash skin immediately with soap and abundant water.

Inhalation If breathing is irregular or stopped, administer artificial respiration. Move to a well ventilated area. Seek medical attention immediately.

If Ingested Severely irritating. Do not induce vomiting. Drink lots of water or milk to dilute. Do not give anything by mouth to an unconscious person. Seek medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media	Water spray, carbon dioxide, dry chemical or foam
Unsuitable Extinguishing Media	None in particular
Hazardous Combustion Products	Do not inhale explosion and combustion gases
Explosive Properties	N/A
Oxidizing Properties	N/A
Special Firefighting Procedures	Wear standard fire fighting gear with self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Special Protection Exposure to spilled material may be irritating or harmful. Wear personal protective equipment.

Protective Equipment Refer to Section 8 on this Safety Data Sheet for appropriate personal protection equipment.

Pick up solids and avoid dust accumulation. Use an appropriate scoop to remove large amounts of material while smaller quantities may be swept up. Avoid the use of water as material becomes alkaline when wet.

Waste Disposal Dispose of in accordance with local, state and federal regulations.

Environmental Precautions Do not allow product to enter drains or waterways. Do not allow material to contaminate ground water system. Refer to Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Wear personal protective equipment. Avoid contact with skin and eyes, inhalation of vapours and mists.

Contaminated clothing should be changed before entering eating areas. Do not eat or drink in work areas.

Do not use any empty containers before they are cleaned.

Protective Equipment Refer to Section 8 on this Safety Data Sheet for appropriate personal protection equipment.

Wash thoroughly after handling.

Storage Store in a cool, adequately ventilated, dry area. Keep containers tightly closed when not in use

Safety Data Sheet

55 LHT

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	CAS No.	ACGIH TLV	OSHA PEL
Silica Sand, Crystalline Quartz	14808-60-7	0.025 mg/m ³ TWA (respirable fraction)	10 mg/m ³ TWA (respirable)
Portland Cement	65997-15-1	10 mg/m ³ TWA (respirable, containing no asbestos and <1% crystalline silica)	15 mg/m ³ TWA (total dust), 5 mg/m ³ TWA (respirable)
Calcium Carbonate	1317-65-3	10 mg/m ³ TWA	15 mg/m ³ TWA (respirable)

ENGINEERING CONTROL METHODS:

Ventilation Use local exhaust ventilation or other engineering controls to minimize exposures.

Eye Protection: Wear safety glasses with side shields or face shield when handling this product. Have an eye wash station available.

Skin protection Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt.

Hand Protection Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory Protection Use approved (OSHA) dust respirator rated n95 when mixing .

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Odour and appearance	Odourless White/Grey powder
Odour threshold	N/A
Specific gravity	1.2 – 1.6
Boiling point	N/A
Freezing point	N/A
pH	11 when wet
Flash point	N/A
Upper/Lower flammability or explosive limits	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Explosive properties	N/A
Oxidizing properties	N/A
Solubility in water	Dispersable
Solubility in oil	N/D
Octanol/Water coefficient	N/D
Calculated VOC content	0 g/l

Safety Data Sheet

55 LHT

SECTION 10: STABILITY AND REACTIVITY

Chemical stability	Stable
Incompatible materials	Strong oxidizing agents, strong acids, strong bases
Conditions to avoid	Keep dry until used
Hazardous decomposition products	CO, CO ₂ , NO _x , and other unidentified organic compounds

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information based on the individual components.

Chemical Name	CAS No.	LD50/LC50
Silica Sand, Crystalline Quartz	14808-60-7	ORAL LD50 (rat) 500 mg/kg
Portland Cement	65997-15-1	N/Av
Calcium Carbonate	1317-65-3	Oral LD50 6450 mg/kg (rat)
Calcium Formate	544-17-2	Oral LD50 2650 mg/kg (rat)

Routes of entry skin contact, eye contact, ingestion, inhalation

Effects of acute exposure irritate the eyes and upper respiratory tract. Ingestion can cause throat irritation.

Effects of chronic exposure cement dust can cause inflammation of tissue lining the nasal interior and the eye cornea. Hypersensitive persons may develop allergic dermatitis.

Skin corrosion	In both dry and wet forms can dry skin and cause alkali burns
Serious eye damage / irritation	Can cause moderate irritation, tearing, and reddening
Respiratory or skin sensitization	May cause an allergic skin reaction, and respiratory irritation
Germ cell mutagenicity	No data available.
Carcinogenicity	This product contains crystalline silica. Crystalline silica (respirable size) is classified as carcinogenic by inhalation by: IARC (Group 1), ACGIH (Group A2), NTP (Group 1), OSHA (Select carcinogen). Cement is not listed as a carcinogen by IARC or NTP; however, cement contains trace amounts of crystalline silica and hexavalent chromium which are classified by IARC and NTP as known human carcinogens.
Reproductive toxicity	No data available
STOT-single exposure	May cause respiratory irritation
STOT-repeated exposure	May cause lung damage upon repeated or prolonged exposure
Aspiration hazard	repeated inhalation of dust may result in silicosis

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	N/A
Persistence and degradability	N/A

Safety Data Sheet

55 LHT

Bioaccumulative potential	N/A
Mobility in soil	N/A
Other adverse effects	N/A
List of components with eco-toxological properties	
Silica sand	LC50 Aquatic acute toxicity carp >10,000 mg/l 72 h

SECTION 13: DISPOSAL CONSIDERATIONS

Handling for disposal Handle waste as per recommendations in Section 7.

Dispose of in an approved landfill. Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

Canadian TDG : not regulated

US DOT: not regulated

IATA: not regulated

SECTION 15: REGULATORY INFORMATION

Canadian Information:

Canadian WHMIS Classification: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR). Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non- Domestic Substances List (NDSL). It contains components listed on the Canadian HPA Ingredient Disclosure List. It contains Crystalline silica, quartz.

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above the minimum concentrations.

U.S. State Right To Know Laws

California Proposition 65: Warning! This product contains a chemical known to the State of California to cause cancer. It contains Crystalline silica, quartz.

Other State Right to Know Law:

MA	Portland Cement, Crystalline Silica, Quartz, Limestone
NJ	Portland Cement, Crystalline Silica, Quartz, Limestone
PA	Portland Cement, Crystalline Silica, Quartz, Limestone
RI	Portland Cement, Crystalline Silica, Quartz, Limestone
MN	Portland Cement, Crystalline Silica, Quartz, Limestone

Safety Data Sheet

55 LHT

SECTION 16: OTHER INFORMATION

This Safety Data Sheet is prepared to comply with the Canadian Workplace Hazardous Materials Information System (WHMIS) and the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

HMIS rating: Health -- 2 Flammability -- 1 Reactivity -- 0

See **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION** for personal protective equipment recommendations.

PREPARATION DATE OF SAFETY DATA SHEET

Prepared by Technical department

Phone number of preparer (416) 255-1111 FAX: (416) 255-1729

Date prepared 19th January, 2020

Flextile Ltd. assumes no responsibility for injury to consumer or third persons caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Flextile Ltd. assumes no responsibility for injury to consumer or third persons caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, consumer assumes the risk in use of the material.

The information and recommends set forth herein are believed to be accurate as some of the information is derived from information provided to Flextile Ltd. from suppliers and because Flextile Ltd. has no control over the conditions of handling and use. Flextile Ltd. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Flextile Ltd. assumes no responsibility for use or reliance thereon. It is the responsibility of the user to comply with all applicable federal, provincial, state, and local laws and regulations.

200

MULTI-PURPOSE CERAMIC TILE ADHESIVE

BASIC USES

For installation of most types of ceramic and mosaic tile on interior wall applications over concrete, concrete backer board, water resistant gypsum board and in dry areas, plywood and gypsum board. Recommended for use on residential shower or tub surround walls on approved backer boards.

COMPOSITION AND MATERIALS

A white non-flammable latex-based mastic which cures to provide a water-resistant, resilient bond. A low odor, freeze-thaw stable, easy spreading, ecologically safe, VOC free adhesive that provides excellent slip resistance.

FEATURES

- Excellent adhesion to most substrates.
- Excellent slip resistance on vertical applications.
- Excellent workability.
- Non-Flammable.
- Water resistant when cured.
- Environmentally friendly, low VOC formula.

LIMITATIONS

Do not use over particle board, Masonite, chipboard, OSB or similar unstable materials. Do not use over rubber, plastic, paint, asphalt, or plywood surfaces in wet areas. Use only on surfaces which are maintained at a temperature above 10°C (50°F) during application and for at least 72 hours after application. Do not use on exterior applications or in pools, tanks, jacuzzis, shower floors, or other areas to be immersed in water. Do not use for setting bathroom fixtures. Do not use for setting white or light colored marble or other translucent tiles. Not recommended for use with green marble or other moisture sensitive stone tiles, or for floor tile applications.

LEED Points Contribution

MR Credit 5, Regional Materials*

IEQ Credit 4.1, Low-Emitting

Materials – Adhesives & Sealants

IEQ Credit 4.3, Low-Emitting

Materials – Flooring Systems

*May be eligible

LEED Points

Up to 2 points

1 point

1 point

TECHNICAL DATA

Meets ANSI A136.1 Type 1 requirements

TYPICAL PHYSICAL PROPERTIES

Open Time	30 - 45 minutes
Initial Cure	24 - 48 hour
Final Cure	28 days

Shear Strength

Meets ANSI A136.1 Type 1 dry & wet requirements

Flammability Non-flammable

(Dry & Wet)

Freeze-thaw

Stability -18°C (0°F)

pH 8.20

Colour White

Cleanability: With water before material dries

Shelf Life 1 year from production date when stored unopened at room temperature.

Approximate Coverage

5 mm (3/16") V notched trowel - 1.2 m² / Liter (50 ft² / Gallon)

6 mm (1/4") square notched trowel - 0.6 m² / Liter (25 ft² / Gallon)

** Coverages given are for estimating purposes only. Actual coverages may vary depending on job site conditions and installation techniques used.*



■ INSTALLATION

PREPARATORY WORK

Surfaces must be sound, even, dry and free of grease, oil, dirt, paint, curing compounds or sealers, or other foreign matter. Surfaces must be true to a tolerance of ± 3 mm (1/8") in 2.4 m (8 ft.) for walls. Work area should be maintained at a temperature of 10°C (50°F) or higher during application and until adhesive is cured. Refer to current editions of TTMAC 09 30 00 Tile Installation Manual, or TCNA Handbook For Ceramic Tile Installation for information regarding placement of expansion or control joints, or for further substrate acceptability information.

APPLICATION

Apply sufficient adhesive firmly to substrate with the flat edge of trowel, then comb with appropriately sized notched edge to give at least 85% contact with the back of tile. Do not spread more adhesive that can be covered with tile before adhesive starts to skin. If skinning occurs, scrape adhesive off and apply fresh material. Press tiles firmly into position with a slight twisting motion and immediately adjust for correct alignment and joint spacing. Clean adhesive from face of tile while still wet with a damp cloth.

■ CURING AND GROUTING

Protect from water until fully cured. Allow wall tile to cure for at least 24 hours. Remove spacers from joints once tile adhesive begins to set. Grout using 1600 Ultra Performance Grout or Flextile Polymer Modified Grout or Flextile Flex-Epoxy 100-100% Solids Epoxy Grout.

■ SAFETY

Refer to Flextile Safety Data Sheet for health and safety information.

■ AVAILABILITY

Flextile 200 Multi-Purpose Ceramic Adhesive is available from Flextile Ltd. and its distributors in:

18.9 L (5 U.S. gals.)

13.25 L (3.5 U.S. gals.)

4 L (1.06 U.S. gals.)

1 L (1.06 U.S. Qt.)

■ WARRANTY

Flextile warrants that this product is of merchantable quality and is suitable for the purpose for which it is intended. Flextile's liability under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price.

■ MAINTENANCE

No maintenance is required except where damages result from unforeseen circumstances. Repair procedures shall be directed by Flextile or its distributors.

■ TECHNICAL SERVICES

Flextile maintains a well-equipped laboratory able to test its products in conjunction with the products with which they are used. Technical assistance for use of Flextile products is available upon request.

■ RELATED REFERENCES

Current editions of: Ceramic Tile Installation Manual (09 30 00) from the TTMAC & TCNA Ceramic Tile Installation Handbook.



Notice: The information herein is the best information we have relating to our products and the recommended uses of our products are based on tests believed to be reliable. Flextile warrants each of its products is of merchantable quality and suitable for the purpose for which it is intended BUT DOES NOT MAKE ANY OTHER WARRANTY, EXPRESSED OR IMPLIED. This Warranty may not be enlarged or extended by our sales representatives, written sales information or drawings. Liability of Flextile under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price. All advice given and structural specifications supplied by Flextile representatives shall be used at the sole risk of those receiving the same and Flextile assumes no responsibility for the design or construction of any works in which its products are used. Any review or inspection of plans, buildings or product applications by Flextile representatives is not to be construed as approval thereof by Flextile. This information supersedes all previous issues and is subject to change without notice.

Safety Data Sheet

200

SECTION 1: IDENTIFICATION

Product: 200

Product Use: Multi-Purpose Ceramic Tile Adhesive

Manufacturer Information:

Ontario

111 Royal Group Crescent

Vaughan, Ontario

L4H 1X9

Tel: (416) 255-1111

Fax: (416) 255-1729

British Columbia

2829 Lake City Way

Burnaby, BC

V5A 2Z6

Tel: (644) 420-4914

Fax: (604) 420-0936

IN CASE OF EMERGENCY CALL CANUTEC (613) 996-6666

SECTION 2: HAZARDS IDENTIFICATION

Classification of the chemical

No specific hazards are encountered under normal product use.

GHS Signal Word

Danger

GHS Classification:

Skin corrosion / irritation

Category 1 Causes skin irritation

Serious eye damage / eye irritation

Category 1 Causes serious eye damage

Skin sensitization

Category 1 May cause an allergic skin reaction

GHS hazard statements

Causes skin irritation may cause an allergic skin reaction, causes serious eye damage; may cause respiratory irritation; may cause cancer; causes damage to organs through prolonged or repeated exposure.

GHS Precautions

P202

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

P260

Do not breathe dust.

P264

Wash skin thoroughly after handling.

P270

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

P272

Contaminated work clothing should not be allowed out of the workplace.

P280

Wear protective gloves and eye protection.

P302+P352.A

If on skin: Wash with plenty of water.

P305+P351+P338

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501

Dispose of contents/container in accordance with applicable regulations.

ADDITIONAL INFORMATION

Hazards not otherwise classified identified during the classification process:

None

This product contains crystalline silica (quartz sand). IARC has classified crystalline silica as a Group 1 carcinogen. Both IARC and NTP consider silica as a known human carcinogen. Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. Because this product is in liquid or paste form, it does not present a dust hazard; therefore, this classification is not relevant for this product in liquid or paste form.

Safety Data Sheet

200

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Name	% By Weight	CAS No.	Classification
Calcium Carbonate	40 - 70	1317-65-3	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3 H335
Silica Sand, Crystalline quartz	0.1 - 1.0	14808-60-7	Carc. 1A, H350 STOT RE 1, H372

SECTION 4: FIRST AID MEASURES

General In case of accident or unwellness, seek medical attention immediately.

Eye Contact Flush eyes and contaminated skin with abundant water. Seek medical attention immediately.

Skin Contact Remove contaminated clothing immediately. Wash skin immediately with soap and abundant water.

If Ingested Do not induce vomiting. Drink plenty of water or milk to dilute. Do not give anything by mouth to an unconscious person. Seek medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media	Water spray, carbon dioxide, dry chemical or foam
Unsuitable Extinguishing Media	None in particular
Hazardous Combustion Products	Do not inhale explosion and combustion gases
Explosive Properties	N/A
Oxidizing Properties	N/A
Special Firefighting Procedures	Wear standard fire fighting gear with self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Special Protection Wear personal protective equipment.

Protective Equipment Refer to Section 8 on this Safety Data Sheet for appropriate personal protection equipment.

Spill Clean Up Directions Pick up solids. Mop up or absorb with an inert material. Scrape up and dispose into a disposal container. Suitable material for absorbing material, sand.

Waste Disposal Dispose of in accordance with local, state and federal regulations.

Environmental Precautions Do not allow product to enter drains or waterways. Do not allow material to contaminate ground water system. Refer to Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Wear personal protective equipment. Avoid contact with skin and eyes, inhalation of vapours and mists.

Contaminated clothing should be changed before entering eating areas. Do not eat or drink in work areas.

Do not use any empty containers before they are cleaned.

Protective equipment Refer to Section 8 on this Safety Data Sheet for appropriate personal protection equipment.

Keep containers tightly closed when not in use. Wash thoroughly after handling.

Storage Store in a cool, adequately ventilated, dry area, avoid freezing.

Safety Data Sheet

200

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	CAS No.	ACGIH TLV	OSHA PEL
Silica Sand, Crystalline Quartz	14808-60-7	0.025 mg/m ³ TWA (respirable fraction)	0.1 mg/m ³ TWA (respirable)
Calcium Carbonate	1317-65-3	10 mg/m ³ TWA	5 mg/m ³ TWA (respirable)

ENGINEERING CONTROL METHODS:

Eye Protection Wear safety glasses with side shields

Skin Protection Avoid skin contact by wearing proper work gloves and long sleeved shirt.

Hand Protection Use protective gloves that provide comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory Protection N.A.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Viscous liquid
Odour and appearance	White paste, Latex odour.
Odour threshold	N/A
Specific gravity	1.4 - 1.5
Vapour pressure	N/A
Vapour density (air=1)	N/A
Evaporation rate	As for water
Boiling point	100°C (212°F)
Freezing point	N/D
pH	8 - 9
Flash point	>100°C (212°F)
Upper/Lower flammability or explosive limits	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Explosive properties	N/A
Oxidizing properties	N/A
Solubility in water	Dispersable
Solubility in oil	N/D
Octanol/Water coefficient	N/D
Calculated VOC content	< 22 g/l

Safety Data Sheet

200

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Will not occur
Chemical stability	Stable
Incompatible materials	N/D
Conditions to avoid	Stable under normal conditions
Hazardous decomposition products	CO, CO ₂ and fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information based on the individual components.

Chemical Name	CAS No.	LD50/LC50
Silica Sand, Crystalline Quartz	14808-60-7	Oral LD50 (rat) 500 mg/kg
Calcium Carbonate	1317-65-3	Oral LD50 6450 mg/kg (rat)

Routes of entry skin contact, eye contact, ingestion.

Effects of acute exposure irritate the eyes. Ingestion can cause irritation of the throat.

Acute toxicity	N/A.
Skin corrosion	N/A
Serious eye damage / irritation	Can cause moderate irritation
Respiratory or skin sensitization	N/A
Germ cell mutagenicity	No data available.
Carcinogenicity	This product contains crystalline silica. Crystalline silica (respirable size) is classified as carcinogenic by inhalation by : IARC (Group 1), ACGIH (Group A2), NTP (Group 1), OSHA (Select carcinogen).
Reproductive toxicity	No data available
STOT-single exposure	N/A
STOT-repeated exposure	N/A
Aspiration hazard	N/A

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	N/A
Persistence and degradability	N/A
Bioaccumulative potential	N/A
Mobility in soil	N/A
Other adverse effects	N/A
List of components with eco-toxicological properties	
Silica Sand	LC50 Aquatic acute toxicity carp > 10,000 mg/L 72h

SECTION 13: DISPOSAL CONSIDERATIONS

Handling for disposal Handle waste as per recommendations in Section 7.

Safety Data Sheet

200

Dispose of in an approved landfill. Waste must be handled in accordance with all federal, state, provincial, and local regulations. Consult authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

Consult Bill of Lading for transportation information.

Canadian TDG : not regulated

US DOT: not regulated

IATA: not regulated

SECTION 15: REGULATORY INFORMATION

Canadian Information:

Canadian WHMIS Classification: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR). Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non- Domestic Substances List (NDSL). It contains components listed on the Canadian HPA Ingredient Disclosure List. It contains Crystalline silica, quartz.

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above the minimum concentrations.

U.S. State Right To Know Laws

California Proposition 65:

Warning! This product contains a chemical known to the State of California to cause cancer. It contains Crystalline silica, quartz.

Lithium Carbonate Listed as reproductive toxicant

Other State Right to Know Law:

MA Limestone, Crystalline Silica, Quartz

NJ Limestone, Crystalline Silica, Quartz

PA Limestone, Crystalline Silica, Quartz

MN Limestone, Crystalline Silica, Quartz

RI Limestone, Crystalline Silica, Quartz

SECTION 16: OTHER INFORMATION

Safety Data Sheet

200

This Safety Data Sheet is prepared to comply with the Canadian Workplace Hazardous Materials Information System (WHMIS) and the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200).

HMIS rating: Health -- 1 Flammability -- 1 Reactivity -- 0

See **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION** for personal protective equipment recommendations.

PREPARATION DATE OF SAFETY DATA SHEET

Prepared by Technical department

Phone number of preparer (416) 255-1111 FAX: (416) 255-1729

Date prepared 7th August, 2015

Flextile Ltd. assumes no responsibility for injury to consumer or third persons caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, Flextile Ltd. assumes no responsibility for injury to consumer or third persons caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, consumer assumes the risk in use of the material.

The information and recommends set forth herein are believed to be accurate as some of the information is derived from information provided to Flextile Ltd. from suppliers and because Flextile Ltd. has no control over the conditions of handling and use. Flextile Ltd. makes no warranty, expressed or implied, regarding the accuracy of the data or the results to be obtained from the use thereof. The information is supplied solely for your information and consideration, and Flextile Ltd. assumes no responsibility for use or reliance thereon. It is the responsibility of the user to comply with all applicable federal, provincial, state, and local laws and regulations.