



**Technical Data & Installation** 

# **Product Overview**

Twist XL is a vulcanized recycled crumb rubber flooring product that is comprised of a unique Ethylene Propylene Diene Monomer (EPDM) Rubber top layer vulcanized to a recycled tire crumb rubber backing. Twist XL is available

in 1" thick tiles, which provide superior durability, comfort and force reduction with an attractive visual. Twist XL tiles are glued together with a unique XL Block System, requiring minimal adhesive and allowing the material to float. Twist is ideal for commercial offices, educational facilities, corporate gyms and other areas where a durable, flexible and sustainable product is needed. Twist is FloorScore certified, Declare Label Red List Free and manufactured in the USA.

# **Features**

Shock & Impact Resistance

**Superior Slip Resistance** 

Superior Durability

Excellent Sound Reduction

Soft & Supportive Under Foot

Qualifies for LEED® Credits

FloorScore® Certified

Declare™ Labeled, Red List Free

• CA Section 01350 Complaint

# **Technical Data**

Tile Dimensions: 24" x 24"

Thickness: 1"

Weight / Tile: 17 lbs.

Max Tiles / Pallet: 120 Tiles

Surface: **Textured** 

ASTM F970 - Static Load Limit: Passes, 250 lbs.

ASTM F2199 - Dimensional Stability: Passes, <0.05 in. Change

ASTM F1514 - Color Heat Stability: Passes, **\Delta E < 8** 

ASTM F925 - Chemical Resistance: **Passes (chart available)** 

ASTM D2240 - Hardness: 85, Shore A

ASTM E648 (NFPA 253) - Critical Radiant Flux: Unclassified, 0.11 W/cm<sup>2</sup>

ASTM E662 (NFPA 258) - Smoke Density: Passes, <450

UL 410 - Slip Resistance: >0.9 (wet & dry)

CHPS / CA Section 01350: **Compliant** 

LBC Red List 3.0 Chemicals: None

Acclimation Time: 24-48 Hours

**Light Foot Traffic: 12 Hours** 

Heavy Foot Traffic: 24 Hours

**Equipment Placement: 48 Hours** 

Storage & Acclimation Conditions: 65° - 85° F

# **Additional Information**

#### **Approved Adhesives**

Gold Series MW 3010 MS Adhesive Wakol MS 245 Caulk Adhesive

### **Approved Finishes**

Loba InvisibleProtect Urethane Finish Loba Supra AT Urethane Finish

### Accessories

Twist XL must be installed with XL Blocks most installation will require one block per tile. Matching acrylic caulk is available for all Twist colors. 4" x 4' XL Reducers and 12" x 4' XL Ramps are available to transition Twist XL to other surfaces. For more information, contact a sales agent or email sales@capricollections.com.

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# Sales & Technical Support

Capri products are sold through a nationwide network of sales agents - to find your local representative, email sales@capricollections.com. Additional technical resources and documents are available online at capricollections.com. For additional technical support, e-mail support@capricollections.com.



# Twist XL

#### **Technical Data & Installation**

#### 1. PRE-INSTALLATION

- Consult all associated technical data for all related products and procedures, including adhesive, maintenance and warranty documents, prior to installation.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in their original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove all plastic and strapping from product after delivery and inspect for visible or obvious damage.
- Unroll all rolled material and allow to relax for at least 24 hours prior to installation.
- Ensure that all adhesives intended for installation are approved for use with flooring material.
- Ensure installation area and material storage conditions are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and after installation.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Protect installation area from extreme climate changes, such as heat, freezing, humidity, and direct sunlight, for at least 48 hours prior, during and 48 hours after installation.
- Ensure all substrate preparation requirements have been performed, read Twist understood by all interested parties.
- Do not proceed with installation until all conditions have been met.

#### 2. PRODUCT LIMITATIONS

Do not install flooring materials outdoors, in and around commercial kitchens or areas that may be exposed to animal or vegetable fats and oils or petroleum-based hydrocarbons. Do not install in areas that may be subjected to sharp, pointed objects under force, such as stiletto heels and narrow furniture feet. When installing in areas that will

experience heavy usage, heavy rolling loads and extremely heavy weight(s), ensure the Loba Supra AT finish is used. Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment. Material may be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals — ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

#### 3. SUBSTRATE PREPARATION

All interior substrates must be prepared according to ASTM F710, as well as all other applicable ASTM, ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. All substrates must have all existing adhesives, incompatible materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding prior to installation. In some situations, shotblasting may be required. When mechanically preparing concrete and silica containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards.

Do not use solvent/citrus based adhesive removers. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable Occupational Safety and Health Administration (OSHA) standards. Following the removal of existing materials, mechanical preparation and / or cleaning, all substrates must vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All potentially porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet porosity

requirements are considered non-porous. Ensure that all non-porous substrates are not contaminated with aforementioned contaminates and that all installation guidelines for non-porous substrates are followed.

All substrates must have a floor flatness of FF32 Twist a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible repair product, patch or self-leveling underlayment installed to prevent telegraphing and installation issues.

#### **CEMENTITIOUS SUBSTRATES**

All cementitious substrates, including self-leveling underlayments, must have a minimum compressive strength of 3000 PSI and be prepared in accordance with ASTM F710 and ACI 302.2R. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

New or existing concrete substrates on all grade levels must be tested in accordance with ASTM F2170, using in situ Probes, to quantitatively determine relative humidity no more than one week prior to the installation.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

#### **Moisture Limits**

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#### **Twist XL Tiles**

- 85% RH
- 6 lbs. MVER

## Gold Series MW 3010 MS Adhesive

- 95% RH
- 8 lbs. MVER

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product must be installed prior to proceeding with installation. Do not install flooring until moisture testing



# Twist XL

**Technical Data & Installation** 

has been conducted per the appropriate standard Twist moisture mitigation has been installed and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

## **LIGHTWEIGHT/GYPSUM SUBSTRATES**

Lightweight or gypsum substrates must have a minimum compressive strength of 2000 PSI when installed over a wood substrate or 3000 PSI when installed over a concrete substrate. Lightweight or gypsum substrates must be installed and prepared in accordance with ASTM F2419 or ASTM F2471, respectively. Lightweight or gypsum substrates that do not meet these requirements should be strengthened with a compatible repair product to improve the compressive strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. All cracked or fractured areas must be removed and repaired with a compatible repair product. New or existing substrates may require a sealant or primer be installed prior to resilient floor installation. Follow the substrate manufacturer's recommendations regarding preparation for resilient flooring.

#### **WOOD SUBSTRATES**

Wood substrates must be compliant with and prepared in accordance with ASTM F1482. Wood substrates should be of double layer construction with a recommended total thickness of 1" or more (depending on federal, state and local building codes). For standard installations, the top layer must be an APA Underlayment Grade plywood or equivalent with a minimum thickness of 1/4". Plywood must be smooth, free of knots or voids and fully sanded. When floors may be subjected to moisture, use an APA approved exterior grade plywood. Wood subfloor materials, made of particleboard, chipboard, fiberboard or cementitious tile backer boards are not acceptable substrates. Do not install flooring directly over solid or engineered hardwood flooring without first installing plywood or a suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Wood subfloor deflection, movement, or instability may cause the flooring installations to release, buckle or deform. As such, do not use a plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install resilient flooring directly over a sleeper system (wood subfloor over concrete) or Sturd-I-Floor panels.

#### **RESINOUS SUBSTRATES**

When installing directly over a resinous products, such as an epoxy coating, ensure the coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Be sure to follow adhesive installation procedures and trowel sizes for non-porous substrates, if used.

#### **METAL SUBSTRATES**

Metal substrates must be thoroughly sanded/ground to remove all residue, oil, rust Twist oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water, moisture and / or high humidity, an anti-corrosive coating should be applied to protect metal substrate. Contact a local paint or coating supplier for recommendations. flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

#### **EXISTING FLOORING SUBSTRATES**

Existing adhesives or adhesive residue must have a compatible cementitious patch or underlayment installed over the substrate prior to installation. Existing hardwood flooring may also have suitable underlayment grade plywood installed over the substrate. Twist XL may discolor existing floor covering products - such discoloration will not be covered under warranty.

Twist XL may be installed over existing vinyl resilient flooring substrates, such as LVT, VCT, VAT, quartz tile, solid vinyl

tile and sheet vinyl, as well as existing hard surface flooring substrates, such as terrazzo, porcelain or ceramic tile. Ensure existing flooring is a single layer of material and that all materials are clean, dry, sound, solid, well adhered and, if adhesive will be used, free of site-applied finishes, waxes and/or contaminants. All loose tiles must be removed and repaired or replaced.

When handling asbestos containing materials, ensure all OSHA regulations are followed and all procedures are compliant with local, state, federal and industry regulations and guidelines. All existing flooring substrates that are outside of flatness tolerances should repaired with a cementitious patch or self-leveling underlayment (with a minimum compressive strength of 3500 PSI after 28 days) to avoid telegraphing imperfections through flooring material. If installing with adhesive, all existing flooring substrates must have any and all site applied finishes and/or waxes completely removed prior to flooring installation in order to ensure a proper adhesive bond. For mechanical removal, use a low-speed buffer and 40-60 grit sandpaper. Properly prepared substrates should not have any remaining gloss or sheen. For chemical removal, ensure chemical treatments will not disrupt adhesion of the existing flooring to the substrate. Be sure to rinse the existing flooring adequately with clean, potable water to remove any and all chemicals from the surface of material. When removing finish from asbestos containing materials, ensure all OSHA guidelines regarding the removal of finish from asbestos is followed, in addition to applicable federal, state, local and industry regulations and guidelines.

Do not install flooring until all moisture on, between or below existing flooring has completely dried. Ensure all dust, dirt and debris are removed prior to flooring installation. Existing flooring substrates are non-porous – if adhesive is used, follow all installation instructions, trowel sizes and flash times for non-porous substrates.

#### RADIANT HEATING SUBSTRATES





**Technical Data & Installation** 

Twist XL is not recommended for use over radiant-heating substrates.

#### 4. CONSTRUCTION JOINTS & CRACKS

ll cracks, construction joints and other voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants. All minor cracks 3/64" wide or less must be repaired with a compatible cementitious patch.

Due to the dynamic nature of concrete, manufacturer cannot warranty installations directly over construction joints (such as control cuts or saw joints), expansion joints, cracks or other voids wider than 1/4". Construction joints, expansion joints or cracks wider than 1/4" must have a suitable crack repair or joint repair system installed per the below recommendations.

All expansion joints should have a suitable expansion joint covering system installed to allow for expansion and contraction of the joint. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of 1/4". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow all caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat construction joints and surface cracks over 1/4", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack treatment designed for use in construction joints or cracks. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a project engineer or architect prior to treating cracks or joints, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all

crack or joint filling products prior to treating construction joints and cracks.

#### 5. TILE PREPARATION

Ensure substrate is clean, dry, flat, sound and suitably prepared. Prior to installation, confirm the material installation pattern and direction per design specifications or work order. Twist XL tiles must be installed in a monolithic pattern using XL Blocks. Inspect all tiles prior to and during installation to verify that there are no visible defects, damages or excessive shading variations. Twist XL has a thickness and size dimension tolerance of  $\pm 1/8$ " - tiles may need to be hand selected during installation as a result. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff. Material installed with obvious visual defects will not be covered under warranty.

Square the room using the 3-4-5 squaring rule or similar method to establish and mark initial installation starting line. Dry-lay several tiles to establish an ideal installation layout, ensuring perimeter tiles are as equal in size as possible. Ensure material around perimeter is tight to the wall without over-compression. Pre-cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Avoid forcing material tightly against vertical surfaces, as material may buckle.

When material will be installed freestanding or with an exposed side, a XL Reducer or XL Ramp must be used to transition Twist XL to other materials. See section 7 for more information.

## 6. TILE INSTALLATION

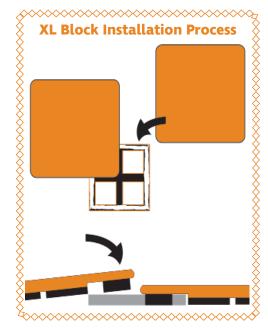
Ensure substrate is suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. If using adhesive to install the material to the substrate, ensure adhesive is approved for use with flooring material and the proper trowel type

and size is used, as manufacturer is not responsible for all adhesion issues related to improper adhesive selection or usage.

If using adhesive to glue material to substrate, apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow instructions based on material thickness and substrate porosity (porous or non-porous).



Set an XL Block on the initial starting line. Use the Wakol MS 245 Caulk adhesive to apply a 1/4" bead of caulk along the outside perimeter of the XL Block - do not apply adhesive to the interior connector pieces (see above image).





# Twist XL

#### **Technical Data & Installation**

Place the corner of the first tile into one quadrant of the XL BLock, ensuring the corner leg of the tile is firmly set into the adhesive bead on the XL Block. Install additional tiles in the three remaining XL Block quadrants, ensuring a tight fit.

When installing tiles along the perimeter, Twist XL may be trimmed using a heavy duty utility knife and a straight edge, a jig saw or a saber saw with a 3" or greater 7-10 TPI wood blade.

When material will be freestanding or have an exposed edge, ensure XL Block is trimmed and ensure perimeter tiles are fully adhered with a trowelable adhesive. When installing into wet adhesive, avoid walking or working on material until adhesive has cured for light foot traffic. Working on material that is installed into wet adhesive could cause tiles to shift. When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent material from moving or shifting. Roll material with a 3 section, 75 lb. roller within 30 minutes of installation, crossing in a perpendicular direction after initial roll. Rollers heavier than 75 lbs. could cause tiles to stretch or shift. Use a hand roller in areas that cannot be reached with larger roller.

When adhering to the substrate, periodically lift material to ensure there is proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover the tile feet entirely. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

## 7. REDUCER & RAMP INSTALLATION

Ensure substrate is suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared. Prior to installing XL Reducers or XL Ramps, ensure that the XL Block is trimmed so that it is flush with the edge of the tile. The toe edge of reducers and ramps is reinforced with wire - do not bend or deform the edges of the reducer or ramp.

Prior to applying adhesive, dry lay the reducers or ramps and make all necessary cuts, ensuring that corners are tightly

mitered. Reducers and ramps can be cut with a jig saw or a saber saw with a 3" or greater 7-10 TPI wood blade. Once all reducers or ramps are cut and dry-laid, mark the ending line and remove to apply adhesive.

Once all reducers or ramps are cut and marked, apply adhesive according to instructions for the specific product in use and observe adhesive flash times, if applicable. Pay close attention to adhesive working times to avoid adhesion issues. This may require working in smaller sections. Be sure to follow instructions based on material thickness and substrate porosity (porous or non-porous).

Carefully and firmly press the material into the adhesive, and use a weighted hand roller or equivalent to ensure material is fully set into adhesive. Use sandbags, bricks or equivalent to weigh down the toe edge of the material to ensure material is flush to both the substrate and the flooring material. Follow all traffic guidelines prior to fill usage.

#### 8. POST-INSTALLATION

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not used mineral oils to clean flooring materials, as material may become permanently discolored. Do not apply abrasive or solvent based cleaners directly to material.

#### 9. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance. Remove all protective coverings prior to cleaning. Sweep or dust mop and vacuum flooring to remove all dirt, dust or debris.

Mix 6 - 7 oz. of Hilway Direct Neutral Cleaner per gallon of warm and clean potable water (1:20) and use a clean mop to apply cleaning solution to area. Let solution stand for 5-10 minutes.

Using a low-speed (180 – 360 RPM) floor buffer or swing single disc scrubber, Scrub the floor while wet using a 22 gauge soft bristled scrubbing brush or a 3M 5100 Red Cleaning Pad. If flooring is heavily soiled, an additional cleaning may be required.

Use a wet vacuum or clean mop to remove all excess cleaning solution. Rinse area with clean, cool water and ensure that all cleaning residue has been removed (this may require additional rinsing). Allow area to dry completely before allowing foot traffic.

To ease maintenance and protect the surface of the material, Twist must have a floor finish installed following installation and initial maintenance.

For additional information regarding maintenance, please see the associated Care & Maintenance document.

### 10. COLORRITE CAULK INSTALLATION

ColorRite acrylic caulk may be used to fill minor gaps around the perimeter, especially around vertical surfaces and fixtures. Ensure that initial maintenance has been performed and that a finish has not been applied prior to using the ColorRite caulk. Use a residue-free releasable tape (such as 3M multi-surface "blue" tape) to cover the flooring material and the adjacent vertical surface / fixture to prevent over-spread.

Once tape is applied, use a suitable caulk gun to apply ColorRite into the gap or void. Use a plastic putty knife to spread the caulk into the gap or void, ensuring caulk is smooth and flush with the blue tape. The caulk should be slightly higher than the flooring material.

Immediately after application, remove blue tape and any excess caulk from the flooring material. Caulk will take 30-60 minutes to dry - avoid foot traffic until fully dry. ColorRite caulk must have finish applied, especially when applied in the field of a flooring installation - allow caulk to cure overnight prior to applying finish.

#### 11. INITIAL FINISH APPLICATION

Ensure that initial maintenance has been conducted prior to applying floor finish. Flooring area must be free of dust, dirt,





**Technical Data & Installation** 

debris, adhesive or cleaning residues and any potential contaminates. Ensure that HVAC is operation - installation area and flooring material must be between 60° and 75° F during application and curing. Avoid direct forced air, drafts and direct sunlight during application and curing. **Do not** dilute finish or apply to surfaces below 50° F.

Loba finishes are two-component products. Shake both components of the finish vigorously prior to mixing. Add Part B directly to Part A, reseal and shake vigorously to mix both components together. Once mixed, pour the finish into a clean paint tray or plastic-lined bucket for application.

If possible, application should start at the primary light source and work away from it, in order to make finish imperfections (such as puddles, skips and voids) easier to identify and correct. Use a 120g microfiber roller (available from Capri) or equivalent to apply the finish in a thin, even coat. Following initial roll, re-roll finish in a perpendicular direction. Avoid puddles, pooling, skips and voids, **especially in seams** - correct imperfections as quickly as possible during application. Prevent all foot traffic, dust and debris from entering the area and allow material to cure for a minimum of 2 hours.

Once the first coat has cured initially, apply the second coat of finish as above within 24 hours. Allow the finish to cure for 12 hours before allowing light foot traffic. Do not resume normal use for 24-48 hours. Finish will fully cure in 7 days - avoid objects which could scratch or damage the floor until the finish has fully cured.

#### 12. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according

to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters or glides must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Casters and glides must have a flat contact point that is at least 1 sq. in. or 1.125 in. in diameter to limit indentation and flooring or finish damage. All rolling seating in desk areas must have a resilient flooring chair pad installed over the finished floor to protect floor covering. **Do not use nylon/hard plastic glides or casters.** 

All fixed furniture legs or corners must have permanent floor protectors installed on all contact points to reduce indentation. wear, scratching other flooring or finish damage. Floor protectors must be intended for resilient flooring and made of a soft material (such as a felt, rubber or a poly-based material). Floor protectors must have a flat contact point of at least 1 sq. in. or 1.125 in, diameter and must cover the entire bottom surface of the furniture leg. Do not use nylon/hard plastic floor protectors or furniture feet.

Ensure all furniture castors and chair legs and are clean and free of all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Prevent water and moisture from accumulating underneath walk-off mats. Ensure mats are manufactured with non-staining backs to prevent discoloration.

#### **WARRANTY**

Capri provides a 10 Year Commercial Warranty and a 15 year Residential Warranty for all Twist recycled rubber products. For additional information, see associated warranty documents.

FOR PROFESSIONAL USE ONLY. PLEASE CAREFULLY REVIEW ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS AND WARRANTY INFORMATION PRIOR TO INSTALLATION.