PROTECTO DECK[™]

EXTERIOR BALCONY ANTI FRACTURE SHEET MEMBRANE



PROTECTO DECK[™] is a cold applied, self-adhering crack isolation waterproofing membrane for use on exterior decks beneath thin-set tile applications and pedestal paver systems.

PROTECTO DECK™ is composed of an anti-microbial fabric top sheet and an internal reinforcement, coated on one side with aggressive rubberized asphalt adhesive to provide an excellent bond to the primed substrate.

PROTECTO DECK[™] incorporates a 100mm adhesive edge that allows a cohesive bond at the edge overlap area.

PROTECTO DECK[™] is intended to be used with our ATECHPROOF[®] BALCONY, FABTAPE[™] and PROTECTO PRIME[™] as a complete system.

The following materials are needed to complete the **PROTECTO DECK™** system:

1. PROTECTO DECK™

Waterproofing membrane specifically designed for use under ceramic tile, porcelain and natural stone tile in conjunction with thin-set mortar.

2. PROTECTO PRIME™

Solvent based primer for porous and non-porous surfaces specifically designed to enhance the adhesion of Atech Sheet membranes.

3. ATECHPROOF® BALCONY MEMBRANE

A UV resistant waterproof membrane for foot trafficable roof decks, concrete walls and roofs, facades and parapet walls.

4. **FABTAPE**[™]

Used as a reinforcing layer at wall to floor transitions and at inside and outside corners in conjunction with the ATECHPROOF® BALCONY MEMBRANE to create a seamless waterproof barrier available in 200mm x 50m rolls.





Premium Building Products That Protect



FEATURES

- Class II Membrane
- Complied with AS 4654 standards
- Accredited by NATA approved laboratory
- Suitable for Residential and Light Commercial applications
- Fully adhered waterproofing system
- Suitable for use beneath Ceramic, Porcelain, Dimensional Stone Tile, Pedestal Paver Systems and Decorative Concrete Surfaces
- Anti-Microbial fabric top sheet
- Can be covered immediately after flood testing
- 30 Day exposure rating
- Internally reinforced
- Seals around properly installed fasteners
- Molecular bonding of the edge overlap forms PROTECTO DECK™ into a monolithic membrane
- Exposed adhesive at edge allows for easy alignment and accurate overlaps
- Excellent adhesion to wood, concrete and most construction surfaces

PACKAGING

Roll Width: 0.914m Roll Length: 15.24m

USES

Used on exterior decks as primary waterproof membrane system for use beneath Ceramic, Porcelain, Dimensional Stone Tile and Pedestal Paver Systems.

SHELF LIFE

PROTECTO DECK™ maintains optimum initial adhesion to substrates when used within one year from the date of manufacture.

STORAGE

PROTECTO DECK[™] should be stored in the original, unopened container at ambient temperatures between 40-90°F (5-32°C). Storage area should remain dry and out of direct sunlight. Do not remove materials from original containers until ready for use. Do not double stack pallets. Do not store rolls on end.

LIMITATIONS

- Not designed for use as a finished traffic system must be protected during construction and covered with tile or stone within 30 days
- Not for use on decks with a negative slope, ponding water conditions or inadequate drainage
- Not for use on decks that don't meet a minimum of 10mm per meter slope to drain
- Not intended for use on rough concrete surfaces must be placed over a well adhered mortar coat
- Not intended for use over wet surfaces minimum 28 day cure time is required on all concrete prior to application of the membrane
- Not recommended for use on concrete floors when hydrostatic head pressure or excessive water vapor transmission exceeds 4lbs. (tested by "Calcium Chloride Test" method), where constant water vapor transmission is present or an RH level of more than 75% of slab, these conditions must be mitigated prior to **PROTECTO DECK**[™] installation.
- Do not install over wet primer.
- Not recommended for use where horizontal floor movement is greater than 9.5mm.
- Cracks larger than 4.8mm should be prepared with proper backing material and treated in accordance with BCA guidelines.
- Do not use over cracks or control joints larger than 9.5mm.
- Joints that are designed to experience movement should be treated accordingly.
- Do not use any solvent-based sealants or acid based cleaners on or around **PROTECTO DECK™** as they may deteriorate the product.
- Not recommended for use where vertical floor movement or deflection is present.
- Do not apply over marine-grade plywood, wood plank flooring, particle board, and oriented strand board (OSB), Luan, Masonite or laminate surfaces.
- Not for use under gypsum or cement based self-leveling underlayments, terrazzo, agglomerate tile or decorative wear surfaces.
- When installing tile over **PROTECTO DECK™**, it is required to maintain a thin-set thickness of 9.5mm or less after the tile is embedded, even if the mortar manufacturer allows for thicker installations. Thicker mortar beds can potentially provide sufficient moisture to cause some natural stones to warp or crown
- Not recommended for vertical applications (contact an Atech Products Company Representative for more info).

Property	Test Method	Resul
Color		Gre
Thickness		1.8mn
Fire Rating / Flame Spread	ASTM E108	Class "A" Fire Rating/ Spread of Flame
Fungi Resistance	ANSI A118.10 Section 4.1	Pas
Seam Strength	ASTM D751 Procedure B	1.46 kgf/n
Dimensional Stability @ -15°F (-26°C)	ASTM D1204 Must pass ≤0.7	Transverse direction 0.03 (% length change Longitudinal direction 0.07 (% length change
Dimensional Stability @ 158°F (70°C)	ASTM D1204 Must pass ≤0.7	Transverse direction 0.6 (% length change Longitudinal direction 0.2 (% length change
Waterproofness	ASTM D4068	Pass (55cm head of water for 48hi
Shear Strength	ANSI A118.10 ASTM C482 Must pass ≥50	7-day 69 (ps 7-day water immersion 64 (ps 4-week 77 (ps 12-week 75 (ps 100-day water immersion 65 (ps
Robinson Floor Test	ASTM C627	Passed at 10 Cycle 300mmx 300mm ceramic til
Wind Uplift assembly 19/32" cdx plywood/½" cement board/PROTECTO DECK™	ANSI/FM 4474(B) TAS 114(D)	120 (ps
Wind Uplift assembly min 2500 psi concrete/ PROTECTO DECK™/6"x6" porcelain tile	ANSI/FM 4474(B) TAS 114(D)	1005 (ps
Elongation @ 0°F (-17°C)	ASTM D5147	MD- 33% / CD- 47%
After Heat Aging 90d @ 158°F (70°C)	ASTM D5869 / ASTM D5147	MD- 27% / CD- 33%
Peak Load @ 0°F (-17°C)	ASTM D5147	MD- 1.69 kgf/m / CD- 1.04 kgf/n
After Heat Aging 90d @ 158°F (70°C)	ASTM D5869 / ASTM D5147	MD- 1.72 kgf/m / CD- 0.98 kgf/r
Elongation @ 74°F (23.3°C)	ASTM D5147	MD- 24% / CD- 73%
After Heat Aging 90d @ 158°F (70°C)	ASTM D5869 / ASTM D5147	MD- 25% / CD- 58%
Peak Load @ 74°F (23.3°C)	ASTM D5147	MD- 1.26 kgf/m / CD- 0.66 kgf/r
After Heat Aging 90d @ 158°F (70°C)	ASTM D5869 / ASTM D5147	MD- 1.18 kgf/m / CD- 0.59 kgf/r
Ultimate Elongation @ 74°F (23.3°C)	ASTM D5147	MD- 40% / CD- 100%
After Heat Aging 90d @ 158°F (70°C)	ASTM D5869 / ASTM D5147	MD- 37% / CD- 87%
Tear Strength	ASTM D5147	MD- 75 kgf / CD- 46 kg
Low Temperature Flexibility	ASTM D5147	Pass 2h @ 0°F (-17°C) 1" mandre
Dimensional Stability	ASTM D1204 / ASTM D5147	MD- 0.2% / CD- 0.1%
Compound Stability	ASTM D5147	Pass 2h @ 215°F (101.6°C
Net Mass	ASTM D228	2.3 kg/sqm av
Tensile Strength (internal reinforcement sheet)	ASTM D412	1300 ps
Tensile Strength	ASTM D412	600 psi minimur
Elongation (adhesive)	ASTM D412	5009
Permeance	ASTM E96 method B	0.003 ma
Puncture Resistance	ASTM E154	45k
Pliability	ASTM D146	Passe
Pliability @ -55% (°C)	ASTM D146-78A	Passe
Installation Temperature		40 F and rising

SURFACE PREPARATION

All exterior deck surfaces must have a minimum 10mm per meter sloped to drain and must meet current BCA guidelines. All surfaces shall be clean, dry, smooth and free of any foreign materials. All surfaces shall be primed with Atech Products Company Primer and allowed to fully cure prior to the installation of **PROTECTO DECK™** membrane system.

NOTE: see "Technical Letter Surface Preparation" for more information. Surface temperatures must be minimum 50°F and rising.

CONCRETE

All concrete surfaces shall have a smooth steel troweled finish or better and shall be clean, free of sharp protrusions, loose aggregate, dust, voids or spalled areas. Broom finish shall not be used. Repair all areas as needed before installation of the **PROTECTO DECK™** system.

Concrete surfaces shall have a minimum cure time of 28 days and shall be clean, dry and must be free of form release agents, concrete curing compounds, admixtures, laitance, concrete surfacing compounds, grease or oils. Allow concrete to dry completely following precipitation.

Not recommended for use on concrete floors when hydrostatic head pressure or excessive water vapor transmission exceeds 1.8kg. (tested by "Calcium Chloride Test" method), where constant water vapor transmission is present or an RH level of more than 75% of slab, these conditions must be mitigated prior to **PROTECTO DECK™** installation.

Do not apply **PROTECTO DECK[™]** over frozen substrates. If additives have been placed in the concrete that could slow the dissipation of moisture, contact Atech Products before installation of **PROTECTO DECK[™]**.

If **PROTECTO DECK**[™] is to be applied to a concrete or wood surface where other curing compounds, liquid coatings or wood treatments have been used, please contact Atech[®] Products Company for recommendations. Metal surfaces are to be clean and free of all paint,oil, coatings, rust or any other contaminants. Wire brush and/or Denatured Alcohol wipe all metal to insure a clean surface. When using alcohol to clean surfaces;we suggest a 2 rag method, 1 rag to apply the liquid and 1 clean rage to wipe off residue to create a clean surface.

FIBRE CEMENT DECKS Substrate Requirements (Combined Subfloor and Underlayment) Minimum 10mm per meter slope to drain is required before

the installing membrane

JOISTS

Joists spacing must be a maximum of 400mm on center, and meet a minimum Deflection rating of L/360 for Porcelain tile and L/720 for Natural stone Tile

SUBFLOOR

Fibre cement sheet:

Minimum 15mm inch Exposure 1 Exterior grade fibre cement sheet with tongue and groove edges.

UNDERLAYMENT (CERAMIC/PORCELAIN TILE)

A 7mm cementitious backer units installed over subfloor and fastened with manufacturer approved fasteners. 7mm cement board underlayment must be approved for exterior use.

UNDERLAYMENT (NATURAL STONE TILE)

20mm Plywood Underlayment or sanded plywood grades with special inner ply construction conforming to underlayment provisions for construction and Industrial plywood, installed over subfloor with adhesive and fasteners. Fasteners should not penetrate framing below

RAILINGS

All surface mounted hardware, such as posts, supports or railings must be installed, properly secured and detailed with FABTAPE[™] and ATECHPROOF[®] BALCONY MEMBRANE prior to **PROTECTO DECK[™]** membrane installation.

PROTRUSIONS, POSTS AND RAILINGS

All flanges, supports, pipes and or protrusions should be installed and properly secured prior to the installation of the **PROTECTO DECK**[™] membrane.

PROTECTO DECK[™] should be cut to fit tight against supports, pipes, posts or protrusions.

DRAINS

Drain flanges should be secure to the deck and fully supported. The drain flange and surrounding area should be primed and allowed to fully cure. A 300mm wide strip of Detail Tape should be cut long enough to extend a minimum 100mm past the edge of the flange. In some cases it may take 2 strips of FABTAPE[™] to fully cover the flange, if 2 strips are used they should be overlapped a minimum of 50mm. Once the FABTAPE[™] is applied over the flange, make an "X" cut in the middle and fold the FABTAPE[™] into the drain using pressure to conform the FABTAPE[™] to the contour of the flange.

MOVEMENT JOINTS / EXPANSION JOINTS:

Movement joints, Expansion joints, Perimeter and Field Expansion joints in the concrete substrate must be installed and detailed per BCA guidelines.

HORIZONTAL APPLICATION

The **PROTECTO DECK[™] MEMBRANE** is intended to be installed on all horizontal surfaces. Pre-measuring and cutting the membrane to fit will expedite the installation process and ensure the **PROTECTO DECK[™]** is installed tight to the vertical walls and around protrusion and drains. Apply an even coat of Protecto Prime[™] to all horizontal surfaces, including drains, protrusions and surface mounted hardware with a brush or roller and allow to dry (cure time is 15-45 minutes). Back roll any puddles or drips immediately. Prime only as much area as can be covered in half a day's work. Primed areas that are not covered in a day's work will need to be re-primed prior to commencement of work. Primer coverage may vary depending on porosity of surface. When fully cured, primer should be tacky to the touch but not lift off of substrate when pressure is applied.

After application and full curing of primer, the **PROTECTO DECK[™] MEMBRANE** is ready to be installed.

Installation of the **PROTECTO DECK™ MEMBRANE** should start at the lowest point of the deck with the 75mm adhesive overlap edge facing towards the high point of the deck. **PROTECTO DECK™** incorporates a siliconized release liner that will not bond to the primed surface for ease of installation, it also has a 100mm perforated "Zip Strip" to assist in aligning the overlap edge.

Roll out the **PROTECTO DECK[™] MEMBRANE** with the release liner side down on the primed surface and align with the edge of the deck. Pull back approximately 150mm of the release liner and adhere the membrane to the primed surface, make sure the membrane is straight and smooth out any bubbles or wrinkles. Slightly pull the membrane tight as you remove the remaining release liner and broom or squeegee the material as it comes into contact with the primed substrate. Smoothing the membrane out with a broom or roller during application, will help to avoid wrinkles, entrapped air, fish mouths and help to obtain maximum contact with the primed surface. For maximum performance, 100% surface contact to the primed substrate must be achieved. Loose laying the membrane is not recommended.

PROTECTO DECK™ has a perforated "Zip Strip" on the release liner that can be removed to help facilitate the installation at the overlap bond prior to adhering the full sheet if desired. Remove a small portion of the "Zip Strip" and align it with the exposed adhesive on the 75mm overlap area. Press the overlap together to create a cohesive bond. Make sure the membrane is straight, slightly pull the membrane tight as you remove the remaining "Zip Strip" release liner and broom or squeegee the material as it comes into contact with the overlap area. Pressure rolling the overlaps is essential to forming a cohesive bond at the overlap and permanent monolithic system. Fold the remaining portion of the membrane (with release liner attached) back onto the existing sheet and peel back approx. 50 - 300mm of release liner at a 45 degree angle, lay membrane back onto the primed substrate and smooth out any bubbles or wrinkles. Pull existing release liner while smoothing out the membrane when it comes in contact with the primed substrate.



Apply each succeeding sheet in the same manner, overlapping the edge laps a minimum of 75mm. If the span requires the use of 2 sheets, the end lap should extend a minimum of 150mm onto the existing sheet.

For best results, a coat of primer is recommended to be applied a minimum of 150mm onto the base sheet and allowed to dry prior to applying overlapping sheet onto primed membrane. Roll surface to ensure overlap is fully bonded. Do not cover wet primer. Once the end lap is fully bonded, apply ATECHPROOF[®] BALCONY MEMBRANE to cover the end lap.

FLOOR / WALL TRANSITIONS

Posts, Protrusions, inside and outside corners, door openings and edge termination:

ATECHPROOF BALCONY MEMBRANE is an UV stable elastomeric fibre reinforced membrane that is pre-mixed and ready to use.

ATECHPROOF[®] BALCONY MEMBRANE may be applied by brush or roller and should be applied at a minimum wet thickness of 2mm directly to the **PROTECTO DECK[™] MEMBRANE** and the adjoining substrate.

NEW CONSTRUCTION -

- 1. Apply a generous coat of ATECHPROOF® BALCONY MEMBRANE onto the **PROTECTO DECK**[™] and the adjoining substrate.
- While the base coat is still wet, embed a 200mm wide sheet of FABTAPE[™] into the wet ATECHPROOF[®] BALCONY MEMBRANE so that 100mm of the fabric is placed onto the **PROTECTO DECK[™]** and 100mm is placed onto the adjoining vertical surface
- Use a roller or brush to smooth out any wrinkles in the fabric and force it into the wet ATECHPROOF[®] BALCONY MEMBRANE so that it bleeds through FABTAPE[™].
- 4. On long runs or at inside and outside corners or where the fabric must be cut, the fabric must be overlapped by at least 50mm. Apply another generous coat of ATECHPROOF® BALCONY MEMBRANE on top of fabric so that fabric is completely covered. Allow drying to the touch.
- 5. Once dry, visually inspect the transition areas, if there are any areas that the FABTAPE[™] is exposed through the ATECHPROOF[®] BALCONY MEMBRANE or that appear to be sparsely coated, re-apply a coat of ATECHPROOF[®] BALCONY MEMBRANE to completely cover the areas.

DOOR OPENINGS IN NEW CONSTRUCTION

1. All door openings shall be flashed in such a manner as to direct water onto the deck surface and shall properly overlap onto the **PROTECTO DECK™** System prior to the installation of the door.

RETROFIT / REMODEL CONSTRUCTION

Retrofit or remodel projects may require the existing siding, cladding, brick, stucco and existing doors to be removed a minimum 100mm to gain access to the structural sheathing of the wall and to properly install and integrate the **PROTECTO DECK[™]** into the drainage plane of the wall system.

- 1. Remove a minimum of 100mm of existing siding to expose wall sheathing being careful to not destroy or damage the existing weather resistant barrier (housewrap or building paper)
- 2. PROTECTO DECK[™] System as outlined above and allow to fully cure
- 3. Overlap existing weather resistant barrier over the ATECHPROOF® BALCONY MEMBRANE and secure, existing weather resistant barrier should be terminated above the finished floor elevation for proper drainage.

This may require new metal "L" ashing to be installed or weep screed type ashing to properly terminate the exterior wall sidina

NOTE. ATECHPROOF® BALCONY MEMBRANE must be applied directly to the exterior wall sheathing to allow for proper waterproof sequencing. Do not apply directly over roofing felt, house wrap, brick, stone or stucco surfaces; this could prevent the wall cavity from draining properly.

DOOR OPENINGS IN RETROFIT OR REMODEL CONSTRUCTION

Existing doors should be removed and the sill and side jambs properly flashed in such a manner as to direct water onto the deck surface and shall properly overlap onto the **PROTECTO** DECK[™] System.

OVERLAPS AND END LAPS

- 1. Apply a 100mm wide coat of ATECHPROOF® BALCONY MEMBRANE to all overlapping seams of the **PROTECTO DECK™ MEMBRANE** and allow to dry to the touch
- 2. Next, apply a final coat of ATECHPROOF® BALCONY MEMBRANE to all seams within 24 hours to seal the installation
- 3. ATECHPROOF® BALCONY MEMBRANE should be cured for at least 24 hours at prior to conducting flood test

PERIMETER EDGE / DRIP EDGE

All drip edge flashings shall be installed and properly fastened prior to the installation of the **PROTECTO DECK™** system. The **PROTECTO DECK[™] MEMBRANE** should be installed over the Drip Edge and terminated approximately 30-35mm from the edge and terminated with a generous coating of ATECHPROOF® BALCONY MEMBRANE.

FLOOD TESTING

PROTECTO DECK[™] system must be installed and fully cured at least 24 hours prior to flood testing. Atech Products Company recommends performing a flood test. Perform flood test with a minimum of 25mm and a maximum of 100mm of water for 24 hours. Drains should be plugged and barriers placed to contain the water.

All leaks shall be located and repaired (see "Repairs") prior to covering the membrane. There shall be a minimum 24 hour wait period after repairs are made prior to re-testing PROTECTO DECK[™] system.

WARRANTY CAN NOT BE ENFORCED WITHOUT DOCUMENTATION OF LEAK FREE FLOOD TESTING SUBMITTED TO PROTECTO WRAP COMPANY WITHIN 30 DAYS AFTER TESTING. THE APPLICATOR AND GENERAL CONTRACTOR MUST SIGN THE SUCCESSFUL FLOOD TESTING DOCUMENT.

REPAIRS

If PROTECTO DECK[™] system is damaged and requires repairing after the flood testing is complete; clean the damaged area and remove any loose material. The damaged area must be completely dry prior to repairs.

Apply a coat of primer a minimum 200mm beyond all edges of the damaged area. **PROTECTO DECK[™] MEMBRANE** patch so as to cover the area a minimum of 150mm past the edge of the damaged area in all directions. Apply the PROTECTO DECK™ patch to the area that was primed and roll firmly to ensure full contact. A minimum 100mm wide, 60mm thick coat of ATECHPROOF® BALCONY MEMBRANE shall be applied to seal all edges of the patch.

PROTECTION OF MEMBRANE

PROTECTO DECK™ system is not designed for long term exposure to sunlight and shall be protected by a suitable weather resistant system if the finished tile covering is not applied immediately. In order to prevent damage to the membrane, drainage boards or suitable protection board should be applied to protect the membrane from damage if the finished tile covering is not installed immediately Protect non-traffic horizontal surface areas with 40kg felt.

Moderate to heavy traffic areas should be protected with 3mm asphalt hardboard or other suitable protection board. If other trades are allowed to work on or near membrane, the contractor should make them aware of the waterproofing and provide suitable protection. They should take care in working around the installation of membrane and the area inspected for damage once the work is finished and report any consequential damages to the Contractor for repair.

TILE

Using a Latex Modified Mortar, first key the mortar into the surface of the membrane with the flat side of the trowel, then comb out the mortar with the notched side of the trowel to ensure the mortar is well seated into the fabric to ensure full bond to the surface of the membrane.

MOVEMENT JOINTS

Follow BCA Guidelines for the location of movement joints in exterior tile work on floors. Use only 100% silicone or siliconized acrylic latex sealant designed for ceramic tile and stone applications

DRAINAGE BOARDS

If a drainage board system is going to be used, it may be adhered directly to the PROTECTO DECK™ with a latex modified thin set mortar application.

MAINTENANCE

Periodic inspection and maintenance of perimeter soft joints, expansion joints, movement joints and sealants around posts/ protrusions is required by the owner to maintain warranty.

Grout joints should be inspected periodically for cracks and repaired ASAP; cracks in grout joints will allow water to LIMITED WARRANTY migrate under the tile and can cause efflorescence to occur at the surface. Neglecting to perform adequate maintenance can This product is covered by the Atech Products Standard 10 cause damage to the waterproofing system and will be cause Year Limited Warranty. for denial of any warranty claim.

CLEAN UP

Dispose of waste in accordance to local requirements. Control worksite so that boxes and release liner do not present a hazard. Packaging materials and release liner can be recycled

CAUTION

PROTECTO DECK[™] should not come into contact with solvent based products, polysulfide's, plasticized PVC roofing materials or high concentrations of resins.

When installed in areas subjected to freeze-thaw cycles. snow and ice accumulation or where the use of snow or ice melting chemicals are used, degradation may occur to grout joints, control joints, soft joints and expansion joints. Follow maintenance requirements and inspect decks regularly in these conditions.

Neglecting to perform adequate maintenance can cause damage to the waterproofing system and will be cause for denial of any warranty claim.

NOTE: Outgassing may be intensified in decks that have been recently subjected to rain, high humidity or other forms of moisture. Consult Protecto Wrap Company for recommendations if these conditions exist.

Field Support

Field support where provided, does not constitute supervisory responsibility. Suggestions made by **ATECH**[®] either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not **ATECH**[®] are responsible for carrying out procedures appropriate to a specific application.

Customer Responsibility

The technical information and application advice given in this publication is based on the best information available at time of print. As the information herein is of a general nature, no assumption can be made as to the products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

Safety Precautions

These products may cause allergic reactions through skin contact, goggles, protective gloves and overalls must be worn. Ensure that there is adequate ventilation and avoid breathing the vapour.

Exclusion Clause

- 1. The information contained in this data sheet is based on many years experience and is correct to the best of our knowledge. **ATECH[®]** will be under no liability whatsoever whether in:
 - a) Contract or tort (including, without limitation, negligence)
 - b) Breach of statute
 - c) Any other legal or equitable obligation other than the quality of the product at the time of despatch.
- 2. Any queries about specification use or application should be directed to our technical service department immediately.
- 3. This exclusion clause does not operate to exclude any warranty that by law may not be excluded.

