

## Protector product specification

PROPERTY	SPECIFICATION	PIL TEST METHOD
Thickness (mm)	Range 0.38 - 0.47	STM 001
Weight (g/m <sup>2</sup> )	Range 150 - 190	STM 234
Shrinkage (%)	Max 13 (accum)	STM 207
Taber Abrasion (cycles)	Min 400	STM 167
WVP (mg/cm <sup>2</sup> /hr)	Min 1.50	STM 204
Hydrolysis Resistance	Pass Satra Recommendation TM344	STM 031
Finish Adhesion (Kg/cm) Permair Laminate	Min 1.0	STM 014
Vamp Flex @ -5°C (cycles) Permair Laminate	Min 150,000	STM 114
Bally Waterproofness (mins) Permair Laminate	Min 120	STM 106

# permair® leather

## World's Leading Microporous Membrane



**PIL Membranes Limited**

Estuary Road  
King's Lynn  
Norfolk  
PE30 2HS

Tel: 00 44 (0) 1553 622000

Fax: 00 44 (0) 1553 622096

[www.premair-leather.com](http://www.premair-leather.com)



wipe clean



breathable



waterproof



scuff resistant



durable

# permair® leather



Certificate Number FM546400

## Welcome to the world of microporous technologies.

Permair is available in a range of core technologies each of which is tailored to meet your specific demands.

- **Standard** - A cost effective technology developed to meet the performance demands of a wide range of applications.
- **Prestige** - Builds upon the proven technology of standard Permair, with an enhanced protection system to provide superior durability.
- **Protector** - The ultimate Permair Membrane. Specifically designed to perform in the most demanding environments. Widely used in safety footwear where EN344 standards are required.

Permair proves ideal for a wide variety of footwear types and market segments including children's footwear, safety boots, mens formal wear, sports shoes, belts, bags and leather goods.

### Global supply

Wherever you operate, it is likely that we have Permair leather available locally.

### Marketing support

Our policy is to connect and support the supply chain, from brand range conception to point of sale swing tags promotion.



## Proven performance leather

Permair is used to improve the performance of conventional leather. The Permair membrane is laminated to split leather and other substrates so that it emulates the epidermal layer of grain leather in terms of both look and feel. Permair leather has the added benefit of being waterproof, breathable, highly durable and non polish.

Permair has been awarded the prestigious SATRA Quality Marks for all three of it's core technologies – Standard, Protector and Prestige.

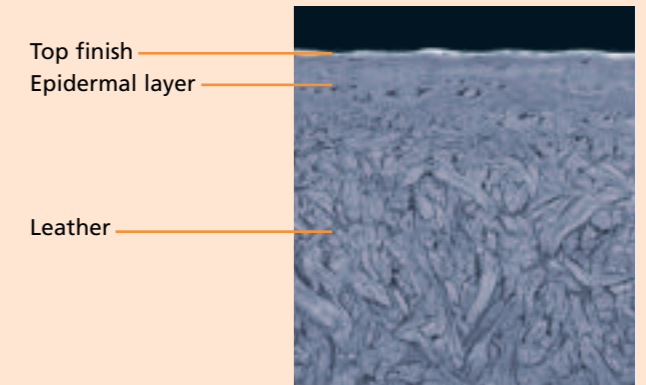
- SATRA – The Shoe and Allied Trades Research Association - is recognised worldwide for it's test facilities and it's commitment to raising standards.

### Customised solutions

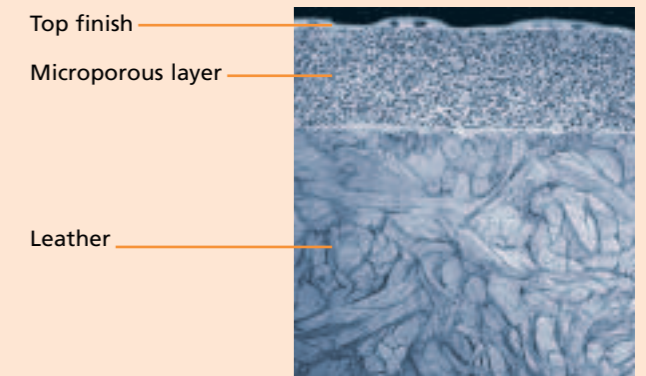
Our global network of expert associates can customise the various Permair technologies to give you the finished leather you need for your products in your marketplace.

Permair is regarded as the No. 1 finishing system

### Grain leather

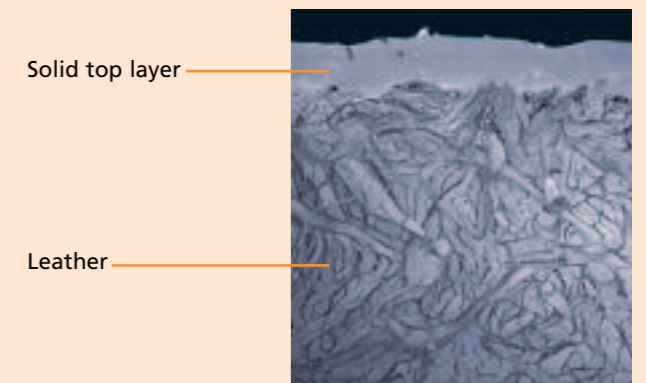


### Permair leather



Laminated microporous top layer emulates the epidermal layer of grain leather, maintaining its natural breathability and providing the added benefits of increased durability and easy care.

### Cast coated leather



Solid top layer prevents breathability and therefore reduces wearer comfort.