

## RECYCLED LEATHER FLOATING FLOOR PANELS TECHNICAL SPECIFICATION

### References

This specification applies to all Torlys smart floors by Listor references of floating floor panels with a recycled leather surface and a cork backing layer, "GFIX" profile.

### Definition

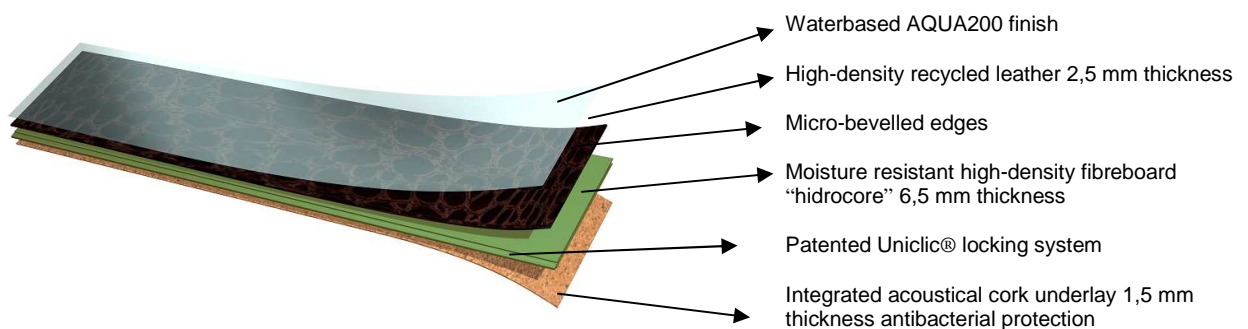
Panels of tiles consisting of a compact high density fibreboard layer, a bonded surface layer of compressed natural recycled leather and a back layer of soft agglomerated cork. The surface is made of bonded genuine bonded leather that is embossed with different designs.

The core material (substrate) is tongued and grooved with a special profile design (Uniclic®) to allow the panels to be assembled together mechanically, without the use of glue.



The edges of each panel elements are micro-bevelled.

### Materials







|            |  |
|------------|--|
| Surface:   | Leather, natural latex.  |
| Substrate: | High density fibreboard with very low formaldehyde content (E1) and high moisture resistance properties. |
| Backing:   | Soft agglomerated cork sheet.  |
| Glue:      | Solvent-free D3 grade glue.  |
| Finish:    | 2 component waterbased varnish.  |













**Classification based on the level of use**

| Level of use        | Class | Symbol   |
|---------------------|-------|--|
| Domestic Heavy      | 23    |  |
| Commercial Moderate | 31    |  |

**Specification Requirements**

| Characteristic   | Symbol  | Requirement                         | Test method         |
|--|---|-------------------------------------|---------------------|
| Length and width<br>measured at surface layer                              |    | 1164 x 194 mm<br>388 x 388 mm       | EN 427              |
| Overall thickness  |   | 10,5 mm ± 0,20mm                    | EN 428              |
| Thickness of surface layer   |  | 2,5 mm ± 0,20mm                     | EN 428              |
| Density of surface layer   |  | > 850 Kg/m <sup>3</sup>             | EN 672              |
| Squareness<br>Straightness<br>measured at surface layer                    |   | < 0,3 mm<br>< 0,2 mm                | EN 427              |
| Flatness of the panel<br>Length - Concave/Convex<br>Width – Concave/Convex |   | ≤ 0,1% / ≤ 0,5%<br>≤ 0,05% / ≤ 0,1% | EN 14085<br>Annex A |
| Openings between panels<br>Average<br>Individual values                    |   | ≤ 0,10 mm<br>≤ 0,15 mm              | EN 14085<br>Annex B |
| Height difference between panels<br>Average<br>Individual values           |   | ≤ 0,15 mm<br>≤ 0,20 mm              | EN 14085<br>Annex B |
| Dimensional variation<br>caused by changes in<br>atmospheric humidity      |  | ≤ 0,15 %                            | EN 669<br>Annex C   |
| Residual indentation   |  | ≤ 0,25 mm                           | EN 433              |

**Additional Properties**

| Characteristic                 | Symbol  | Requirement   | Test method            |
|--------------------------------|---|---|------------------------|
| Mass per unit area             |    | Average 8.800 g/m <sup>2</sup>  | EN 430                 |
| Locking strength               |    | F <sub>long</sub> > 5 kN / m<br>F <sub>short</sub> > 8 kN/ m  | Internal               |
| Abrasion resistance            |    | Average 6.000 revolutions to initial point<br><br>(abrasion wheels CS17; 1Kg weight per wheel; cleaning 10 revolutions each 1000 turns) | Internal               |
| Impact resistance (small ball) |   | > 90 N  | EN 438-2               |
| Formaldehyde emission          |  | Formaldehyde Class E1<br>Release ≤ 3,5 mg/m <sup>2</sup> h  | EN 14041<br>EN 717-2   |
| Reaction to fire               |  | Class D <sub>fl</sub> – S1  | EN 14041<br>EN 13501-1 |
| Slip resistance                |  | Technical class DS.<br>Dynamic coefficient of friction ≥ 0,30   | EN 14041<br>EN 13893   |
| Impact noise reduction         |  | deltaLw = 17 dB   | EN ISO 140-8           |
| Thermal resistance             |  | 0,099 m <sup>2</sup> .K/W   | EN 14041<br>EN 12664   |
| Electrical behaviour           |  | Antistatic floor covering<br><br>The body voltage shall not exceed 2,0 kV   | EN 14041<br>EN 1815    |

## Fibreboard Properties

Specially manufactured for use in areas with temporary high levels of relative humidity.

Low formaldehyde content class E1, good dimensional stability and low swelling.

The fibreboard is supplied coloured green.

## Fibreboard General Characteristics (average values)

| Property                           | Units             | Specification | Test method |
|------------------------------------|-------------------|---------------|-------------|
| Density                            | Kg/m <sup>3</sup> | 880           | EN 323      |
| Internal Bond                      | N/mm <sup>2</sup> | 1,5           | EN 319      |
| Bending Strength                   | N/mm <sup>2</sup> | 40            | EN 310      |
| Modulus of Elasticity              | N/mm <sup>2</sup> | 3500          | EN 310      |
| Thickness Swelling 24 hours        | %                 | 12            | EN 317      |
| Thickness Swelling permanent       | %                 | 19            | EN 321      |
| Moisture Content                   | %                 | 7             | EN 322      |
| Dimensional Movement length/ width | %                 | 0,4           | EN 318      |
| Dimensional Movement thickness     | %                 | 6             | EN 318      |
| Surface Soundness                  | N/mm <sup>2</sup> | 1,2           | EN 311      |
| Grit Content                       | % Weight          | 0,05 max      | ISO 3340    |
| Density Profile                    | %                 | > 90          |             |
| Formaldehyde content               | mg / 100g         | < 9           | EN 120      |

## Packing

Floating floor panels shall be dispatched in cardboard trays, wrapped in shrinking foil, providing suitable protection for normal transport and storage conditions.

Packages shall be marked with identifying information by a label and/or inkjet printing and palletized. Each pallet is over strapped and wrapped with stretch film.

| Dimensions of planks and tiles<br>(length x width x thickness) | Package         |                         |                  |                           |
|--|-----------------|-------------------------|------------------|---------------------------|
|  | Planks per pack | m <sup>2</sup> per pack | Packs per pallet | m <sup>2</sup> per pallet |
| 1164 x 194 x 10,5 mm   | 6               | 1,355                   | 60               | 81,2                      |
| 388 x 388 x 10,5 mm  | 11              | 1,656                   | 48               | 79,68                     |

## Limited Warranty

We certify that the product is free from manufacturing and structural defects and will remain free of these defects for as long as you own your floor.

We guarantee that the surface finish of the Bonded Leather Floors will not wear through within 10 years (Residential) or 5 years (Commercial), under normal residential or commercial use and with proper maintenance.

See [www.listor.com](http://www.listor.com) for full warranty information.

## Technical Features



Industry leading patented UNICLIC® locking system and GFIX join performance.



High quality two-component waterborne PU finish, with very high wear and impact resistance with a natural look-and-feel.



Low swelling and moisture resistant High Density Fibreboard.



Micro-bevelled edge aesthetic enhancement.



Embedded antibacterial and fungus protection using Microban® antibacterial technology.



Indoor air quality certification for low-emitting interior building materials.



Formaldehyde-free agglomeration technology.



Certification for safety and energy-saving performance.

## Normative references

|          |  |
|----------|--|
| EN 427   | Resilient floor coverings – Determination of the side length and the squareness and straightness of tiles.                     |
| EN 428   | Resilient floor coverings – Determination of the overall thickness.  |
| EN 430   | Resilient floor coverings – Determination of mass per unit area.   |
| EN 433   | Resilient floor coverings – Determination of residual indentation after static loading.  |
| EN 438-2 | Decorative high-pressure laminates (HPL) sheets based on the thermosetting resins. Determination of properties.                |
| EN 669   | Resilient floor coverings – Determination of dimensional stability of leather tiles caused by changes in atmospheric humidity. |
| EN 672   | Resilient floor coverings – Determination of apparent density of agglomerated cork.  |
| EN 685   | Resilient floor coverings – Classification.  |
| EN 14085 | Resilient floor coverings – Specification for panels for loose laying.   |
| EN 14041 | Resilient, textile and laminate floor coverings – Essential characteristics.   |

### Supplementary information

Additional technical information or maintenance and laying instructions of cork floor coverings can be obtained at our website [www.listor.com](http://www.listor.com).



Product made on a production line certified ISO 9001.

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