

Technical Data Sheet

SoftSurface™ PS

Version 01 - 01/25



1. Product name / manufacturer

Product Name : SoftSurface™ PS
Company : Le Pavé®
93-97 rue du Port, 93300 Aubervilliers, FRANCE
www.le-pave.com

Contact : +33 1 89 71 10 59 / contact@le-pave.com

2. Product Description

SoftSurface™ PS is a next-generation soft-touch surface developed by LE PAVE, a French company. SoftSurface™ PS is a smooth-to-the-touch, rigid, non-porous, and homogeneous material available in panel form. It is a hygienic, inert, non-toxic, easy-to-maintain, and repairable product that offers limitless shaping potential and a high level of resistance to chemicals, steam, and weather conditions. The unique combination of its aesthetic and technical properties makes SoftSurface™ PS a solution to consider for a wide range of applications, including furniture, kitchens, marine environments, wall cladding, and more.

3. Composition

SoftSurface™ PS is made of 100% recycled high-impact polystyrene (HIPS) sourced in France. Its exclusive composition allows the material to retain the technical properties of polystyrene, while being reworked by Le Pavé in terms of appearance and product format (sizes and thicknesses). No resins or additional components are added. SoftSurface™ is a mono-material, which ensures its recyclability. Its main characteristics include: non-proliferation of bacteria (without the use of antibacterial additives or any other agents), hardness, strength, durability, ease of repair, minimal maintenance, and easy cleaning. For more information, please consult the material safety data sheets available on our professional platform or upon request by email.

4. General Technical Information

GENERAL		
	Panel 1400 x 900 mm (55.1 x 35.4 in)	Panel 2400 x 1350 mm (94.5 x 53.1 in)
Composition	100% recycled polystyrene	100% recycled polystyrene
Side A Finish	Uniform, Matte / Sanded with 320 grit	Uniform, matte-satin finish
Side B Finish	Non-uniform / Planed finish	Uniform, satin finish
Water-repellent	Yes	Yes
Treatment	None	None
Re-cuttable	Yes	Yes
Sandable	Yes	Yes
Care	Microfiber cloth and white vinegar	Microfiber cloth and white vinegar
Production	100% French (Île-de-France)	100% French (Bourgogne)

5. Manufacturing tolerances of the panels

GENERAL			
	Panel 1400 x 900 mm (55.1 x 35.4 in)	Panel 2400 x 1350 mm (94.5 x 53.1 in)	Standard
Composition	100% recycled polystyrene	100% recycled polystyrene	
Length	1420 mm (55.9 in)	2400mm (94.5 in)	EN 438-2-6 (declarative)
Length tolerance	+/- 2.5 mm (0.1 in)	+/- 10mm (0.39 in)	EN 438-2-6 (déclarative)
Width	920 mm (36.2 in)	1350mm (53.1 in)	EN 438-2-6 (déclarative)
Width tolerance	+/- 2.5mm (0.10 in)	+/- 10mm (0.39 in)	EN 438-2-6 (déclarative)
Squareness	Yes	Yes	EN 438-2-8 (déclarative)
Squareness tolerance	+/- 1° (degree)	+/- 1° (degree)	EN 438-2-8 (déclarative)
Thickness	8, 12, 15mm (0.31, 0.47, 0.59 in)	12, 15mm (0.47, 0.59 in)	EN 438-2-5 (déclarative)
Thickness tolerance	+/- 0.25mm (0.01 in)	+/- 0.75mm (0.03 in)	EN 438-2-5 (déclarative)
Density	1050 kg / m ³	1050 kg / m ³	EN ISO 1183-1 (déclarative)

6. Technical Data

MECANIQUE			
	Result	Standard	Unit of measurement
Flexural modulus	1850 MPa	ISO 178	MPa
Maximum flexural stress	30 MPa	ISO 178	MPa
Tensile modulus	1870 MPa	ISO 527	MPa
Maximum tensile stress	19.4 MPa	ISO 527	MPa
Charpy impact (notched)	5kJ/m ²	ISO 179	kJ/m ²
Hardness	78	ISO 868	Shore D
Heat Deflection Temperature (HDT)	74.4°C (165.9°F)	ISO 75-2	°C
Ball drop resistance (500 g)	100% unbroken at 70 cm (≈ 27.6 in)	NF EN 60-050	Hauteur cm

Thermal			
	Result	Standard	Unit of measurement
Surface resistance to wet heat at 110°C ≈ 230°F*	5	EN 12721	Rating /5 for a test at 110°C (≈ 230°F)
Surface resistance to dry heat at 90°C ≈ 194°F*	5	EN 12722	Rating /5 for a test at 90°C (≈ 194°F)
Surface resistance to dry heat at 120°C ≈ 248°F*	4 (slight surface gloss)	EN 12722	Rating /5 for a test at 120°C (≈ 248°F)
Linear expansion	0.5 mm/m/10°C ≈ 0.000028 in/in/18°F	Déclarative	mm/m/10°C
Thermal conductivity	0.1W/m.K ≈ 0.058 BTU/(ft·hr·°F)	Déclarative	W/m.K

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Aesthetic			
	Result	Standard	Unit of measurement
UV resistance for outdoor use under climatic conditions	See table and comments below	ISO 4892-2 (cycle 1)	Rating /5 and remarks after 250 hours of exposure
UV resistance to artificial light*	4.5	ISO 4892-2 (cycle 2 meth. B 2013)	Rating /5 at 250 hours of exposure
Stain resistance (Cleaning according to standard NF12720)*	See table	NF EN 60-050	Rating /5
Resistance to circular scratching*	0.6 N	NF EN 60-050	Newton
Gloss*	20° = 1.3 GU	NF EN 60-050	Gloss Unit (GU)
	60° = 5.7 GU	NF EN 60-050	Gloss Unit (GU)
	85° = 34.3 GU	NF EN 60-050	Gloss Unit (GU)

Stain resistance (Cleaning according to standard NF12720)*	
Staining agents	Observations under direct and diffuse light (rating out of 5)
Citric acid	5
Red wine	5
Vinegar	5
Bleach	5
Ballpoint pen ink	4
Vegetable oil (hot liquid)	4
Coffee (hot liquid)	4
Solvent	4
Bic pen	2
Varnish	2

5 = no change
 4 = slight visual variation
 2 = surface degradation

UV resistance for outdoor use under climatic conditions		
Colors	Rating out of 5	Comment
Soft Beige 012	4	Dulling recoverable with moderate sanding
Soft Grey 013	4	Dulling recoverable with moderate sanding
Soft Green 014	4	Dulling recoverable with moderate sanding
Soft Blue 011	3	Whitening recoverable with heavy sanding
Soft White 001 Soft White & Black 003 Soft White & Multicolor 004 Quartz White 021	2	Material yellowing not recoverable by sanding
Soft Black 002 Quartz Black 022	1	Cracking of the material, no color change

Comments / Observations:

- The references Soft Beige 012, Soft Grey 013, and Soft Green 014 show no contraindications for outdoor use (for an estimated duration of 2 to 5 years).
- The reference Soft Blue 011 shows significant color change (within 1 to 2 years), but the appearance can be easily restored through sanding.
- Soft White 001, Soft White & Black 003, and Soft White & Multicolor 004 exhibit yellowing over time, but their mechanical properties remain unaffected.
- Soft Black and Quartz Black 022 are not recommended for outdoor use due to surface mechanical degradation (cracking) and no recovery possible through sanding.

*Tests performed on white-based colors



7. Properties and Characteristics

SoftSurface™ is a material that has demonstrated suitable technical properties for use in public-access buildings (ERP) and/or residential settings, offering the durability, versatility, and resistance that define it.

It is a hygienic material that prevents the proliferation of all types of microorganisms. It is inert, non-toxic, easy to maintain, repairable, and provides high resistance to chemical agents, heat, and weather conditions.

Additionally, it is a solid, non-porous, and homogeneous material throughout its thickness, easy to work with, and can be bonded or joined to create continuous surfaces. It can also be thermoformed to produce curved shapes.

8. Processing / Installation

SoftSurface™ is supplied in panel form and can be worked similarly to wood — it can be cut, sanded, milled, and joined. All possible applications and processing methods using this material are detailed in the installation guides and various technical notes provided by Le Pavé.

9. Maintenance

How to Prevent Damage to SoftSurface™

As a general guideline, avoid prolonged exposure to harsh chemicals such as strong acids, strong bases, and organic solvents.

It is recommended to remove any spills or contamination as quickly as possible (refer to the chemical exposure table).

Repairing SoftSurface™

In most cases, damage to SoftSurface™ is repairable.

Nicks, scratches, or stains can be removed by sanding the surface, following the instructions in the Technical and Installation Guide.

Special re-sandable SoftSurface™ two-component adhesives are also available to fill chips or porosity that are too deep to be repaired by sanding alone.

10. Limitations

Le Pavé provides a series of technical notes recommending suitable thicknesses, colors, and panel formats for specific applications.

The 8 mm thickness is intended for very specific uses, such as furniture cladding or vertical applications.

Standard working thicknesses are 12 mm and 15 mm, suitable for a wide range of applications.

Signs of wear may be more visible on darker colors, which should be taken into account when using them in high-traffic areas.

SoftSurface™ PS is a 100% recycled material, and as such, slight variations may occur between batches. To avoid this, it is recommended to work with panels from the same production batch.

Just like wooden boards may have knots, our panels may exhibit slight surface irregularities due to the transformation process of 100% recycled material. A defect sheet is attached to each quote, outlining potential—but not systematic—irregularities that may appear on the panels.

11. Additional Information

The handling, storage, use, or disposal of the product must be carried out under the responsibility and supervision of the material holder. LE PAVÉ assumes no liability for any loss, damage, or cost resulting from improper use.

This Technical Data Sheet has been prepared and must be used exclusively for this product.

If the product is used as a component of another product, this information may no longer be applicable.

12. Legal Terms and Warranty

All legal terms and warranty conditions are detailed in the General Terms and Conditions of Sale (GTCS), available on our website or upon request by email.

13. Reference Standards and Tests

ISO 178: Plastics — Determination of flexural properties

ISO 527: Plastics — Determination of tensile properties

ISO 179: Plastics — Determination of Charpy impact properties — Test method

ISO 868: Plastics and ebonite — Determination of hardness by indentation using a durometer (Shore hardness)

ISO 75-2: Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite

NF EN 60-050: Household and similar electrical appliances — Safety — Part 1: General requirements

EN 12721: Safety of machinery — Safety requirements for heat treatment equipment — Cookers

EN 12722: Safety of machinery — Safety requirements for heat treatment equipment — Cooking ovens

ISO 4892-2 (cycle 1): Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps

ISO 4892-2 (cycle 2): Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps

EN 438-2-6: High-pressure decorative laminates (HPL) — Properties and test methods — Part 2-6: Determination of resistance to humidity

EN 438-2-8: High-pressure decorative laminates (HPL) — Properties and test methods — Part 2-8: Determination of resistance to heat

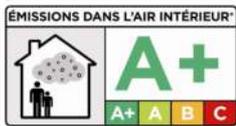
EN 438-2-5: High-pressure decorative laminates (HPL) — Properties and test methods — Part 2-5: Determination of resistance to heat by direct contact

EN ISO 1183-1: Plastics — Determination of density and specific gravity — Part 1: Method by water pycnometry

14. Certifications and Labels



The EcoVadis label is an international certification that evaluates companies' performance in corporate social responsibility (CSR) and environmental management. It is based on four main themes: environment, labor and human rights, ethics, and sustainable procurement. Companies are scored from 0 to 100, and the results help measure and improve their sustainable practices. EcoVadis is globally recognized and widely used by many major companies to assess their suppliers. Obtaining an EcoVadis label highlights a company's commitment to sustainable development. **By earning the Bronze Medal, we are among the top 35% of companies rated by EcoVadis!**



CLASS A+ LABEL

Since January 1, 2012, construction products in France must be labeled according to their VOC (volatile organic compounds) emissions. SoftSurface™ has achieved the highest rating, A+, which guarantees low VOC emissions and therefore helps preserve the indoor air quality of buildings.



The CSTB has been supporting us since 2018 in certifying our materials. We rely on them notably to carry out our standardized testing. An ATEX certification is also currently underway with the CSTB.



To assess the environmental impact of our material, Le Pavé has produced several Environmental Product Declarations (EPDs) for our SoftSurface™ material in accordance with NF EN 15804+A2:2019 and ISO 14025 standards. These EPDs correspond to the two main scenarios/uses/applications typically associated with SoftSurface™ projects:
Interior cladding, via an EPD issued by INIES
Furniture, in compliance with EPD International and the PCR Plastic Panels 2018:10-v1.0.2
Our EPDs were prepared by the Mu cooperative and are currently undergoing validation by a third-party verifier.



INSTITUT TECHNOLOGIQUE

FCBA has been supporting us since 2018 in the certification of our materials. We rely on them notably to conduct our standardized testing. Two DTU certifications are currently being validated with FCBA.