

This document applies to production, testing, receiving and delivery of LITHOPLAST® PERFOR product.

**LITHOPLAST® PERFOR** is a single-layer, perforated, studded membrane produced from high-density HDPE polyethylene without use of UV stabilizer. Perforated, studded LITHOPLAST® PERFOR membrane is available in form of rolls.

## 1. Technical description

### ▪ Material

Ultimate raw material for production of perforated, studded LITHOPLAST® PERFOR membrane is a high-density HDPE polyethylene. Colouring agent is added to input material in course of production.

### ▪ Lifetime

If the product is not exposed to UV radiation, its lifetime exceeds 50 years.

### ▪ Appearance

The membrane surface is smooth, with roughness within thickness tolerance limits. The membrane contains regular lines of studs with inside perforation. 10mm wide edges are on sides of unwound roll. After unwinding, the roll can show undulation based on ambient temperature. This undulation does not have any impact on product quality, as well as on physical and mechanical features. Reference sample must be approved in advance in case of customer-specific requirements on product appearance.

### ▪ Color

Perforated, studded LITHOPLAST® PERFOR membrane is black.

## 2. Use

### ▪ Building industry

In building industry, the studded, perforated LITHOPLAST® PERFOR membrane is used for ventilation and drainage installations according to ČSN EN 13967 (draining layer for use in open terraces, balconies, flat roofs; draining layer for use in roof parking areas; draining layer for use in wet areas, such as shower rooms, swimming pools, breweries, soft drink factories, dairies, etc.).

Double sided, adhesive butyl rubber tape is used for connecting rolls in membrane folds. Permanent load must be applied on joint.

## 3. Package

### ▪ Roll

Membrane is wound on rolls. The roll is tied with polypropylene tape in the middle.

## 4. Identification

### ▪ Roll

Each roll is identified with CE label, information tag containing dimensions, and handout with information for end user.

## 5. Handling and Storage

### ▪ Handling

Perforated, studded LITHOPLAST® PERFOR membrane must be transported in vehicles providing sufficient protection of load (e.g. box truck). During the transport, the load must be secured against movements and contamination.

### ▪ Storage

Perforated, studded LITHOPLAST® PERFOR membrane must be stored in area complying with ČSN 64 0090, i.e. dry, closed, warehouse protected from sunshine, at temperatures between +5°C and 35°C. On the site, the membrane must be protected against UV-radiation and contamination.

## 6. Warranty

- Warranty and complaints are governed by generally applicable regulations.

## 7. Disposal

- Polyethylene waste is classified as „other waste“ according to Notice of Ministry of the Environment (MoE) No. 381/2001. Pure waste can be recycled. Contaminated waste must be handled according to the type of contaminant in accordance with Waste Management Law.
- This product is not hazardous in terms of Law No. 350/2011 of Coll. on chemical substances and chemical preparations, as amended.

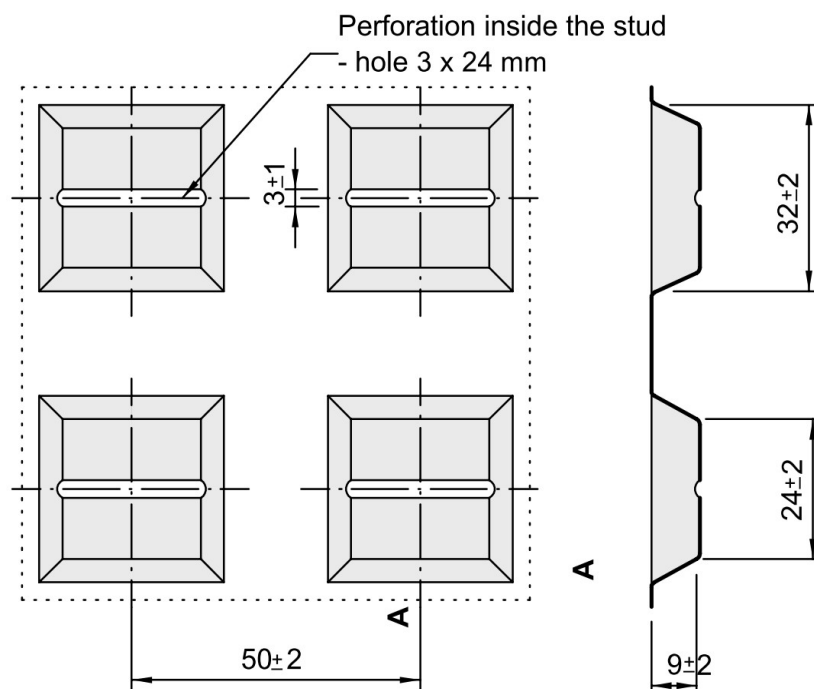
## 8. Tests, standards and technical specifications

- Product tests and certifications are realized according to harmonized standard ČSN EN 13967 (Waterproofing stripes and membranes - Plastic and rubber stripes, as well as membrane for waterproofing insulation and rubber stripes and membrane for insulation against pressurized water). Individual requirements on product testing and inspection are described in internal operation documents and Production Management System Manual.
- Quality management system is certified according to ČSN EN ISO 9001:2009.

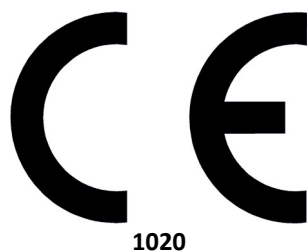
### 9. Parameters of product packed in roll

Identification		10/0.8/1400	Tolerance
Volumetric weight	kg/m <sup>3</sup>	950	±50kg/m <sup>3</sup>
Default membrane thickness	mm	0.8	±10%
Width	mm	1400	±2%
Length	lin.meter	20	±0.5m
Stud height	mm	9	±2mm
Stud volume	l/m <sup>2</sup>	3	±10%
Air capacity of the gap	l/m <sup>2</sup>	6	±10%
Compression strength	N/mm <sup>2</sup>	0.23	breaking strength
Package	m <sup>2</sup>	28	±0.7m <sup>2</sup>
Surface density	kg/m <sup>2</sup>	0.81	±10%
Weight of package	kg	22.68	±10%

### Drawing of LITHOPLAST® PERFOR 10/0.8/1400



## 10. CE product label



LITHOPLAST, s.r.o.

Company ID: 63496305

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1020 - CPR - 060024753

EN 13967

LITHOPLAST® PERFOR

L01

Shaped polyethylene membrane, type V  
ventilation and draining installation for terraces and balconies

Flammability	NPA
Water-tightness	NPA
Resistance against tearing	NPA
Strength of the joint	NPA
Resistance against impacts LITHOPLAT PERFOR 10/0.8	method A - max 1500mm method B - max 1300mm
Resistance to tensile stress	NPA
Resistance against static load	NPA
Durability	NPA
Hazardous substances	Ingredients do not contain any hazardous substances.

### 11. MOREOVER, THE PRODUCT PROVES FOLLOWING FEATURES

LITHOPLAST® PERFOR membrane is produced from the same material as LITHOPLAST® INSTAL; it has the same thickness, and thus meets the values specified for LITHOPLAST® INSTAL membrane.

Characteristic	Property	Technical specifications
<b>Compression strength</b> LITHOPLAST® INSTAL 10/0.8	max 0.23N/mm <sup>2</sup>	ČSN EN ISO 604
<b>Resistance to tensile stress of semiproduct</b> method A (thickness 1 mm) longitudinal direction transversal direction	700N/50mm 700N/50mm	ČSN EN 12311-2
<b>Resistance to tensile stress of semiproduct</b> corpuscle according to ISO 1798 longitudinal direction transversal direction	19N/mm <sup>2</sup> 19N/mm <sup>2</sup>	ČSN EN 12311-2
<b>Drawability, longitudinal</b>	230%	
<b>Drawability, transversal</b>	230%	