

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

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

1. Technical description

▪ Material

Ultimate raw material for production of studded LITHOPLAST® SANA 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. 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

Studded LITHOPLAST® SANA membrane is black.

2. Use

▪ Building industry

In building industry, the studded LITHOPLAST® SANA membrane is used as insulation against moisture and for ventilation installations according to ČSN EN 13967 (membrane for renovation of objects and their following ventilation, rehabilitation of wet masonry in existing objects (inside, as well as outside), membrane for vertical draining walls, protection of vertical insulation - replacement for classical insulation walls, hidden casing). Double sided, adhesive butyl rubber tape is used for connecting rolls in membrane folds. Permanent load must be applied on joint.

▪ Others

LITHOPLAST® SANA membrane can be used for protection of woody plants.

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

Studded LITHOPLAST® SANA 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

Studded LITHOPLAST® SANA 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.

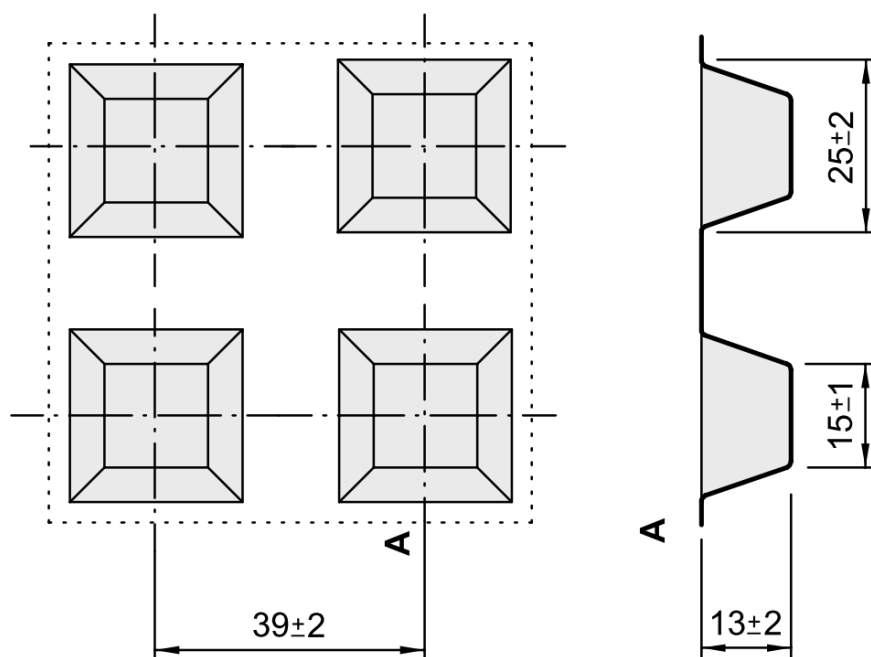
8. Tests, standards and technical specifications

- 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

| Identification | | 15/08/1400 | Tolerance |
|----------------------------|-------------------|------------|----------------------|
| Volumetric weight | kg/m ³ | 950 | ±50kg/m ³ |
| Default membrane thickness | mm | 0.8 | ±10% |
| Width | mm | 1400 | ±2% |
| Length | lin.meter | 20 | ±0.5m |
| Stud height | mm | 13 | ±2mm |
| Stud volume | l/m ² | 3.5 | ±10% |
| Air capacity of the gap | l/m ² | 9.5 | ±10% |
| Compression strength | N/mm ² | 0.33 | breaking strength |
| Package | m ² | 28 | ±0.7m ² |
| Surface density | kg/m ² | 0.81 | ±10% |
| Weight of package | kg | 22.68 | ±10% |

Drawing of LITHOPLAST® SANA 15/0.8/1400



10. CE product label



1020

LITHOPLAST, s.r.o.
Company ID: 63496305
06
1020 - CPR - 060024753

EN 13967

LITHOPLAST® SANA
L01

Shaped polyethylene membrane, type V
insulation against moisture with option of ventilation

| | |
|---|---|
| Flammability | NPA |
| Water-tightness | water-tight at pressure of 60 kPa |
| Resistance against tearing | NPA |
| Strength of the joint | NPA |
| Resistance against impacts LITHOPLAT SANA 15/0.8 | method A - max 1500mm method B - max 1300mm |
| Resistance to tensile stress | NPA |
| Resistance against static load | NPA |
| Durability LITHOPLAT SANA 20/0.8 | Water-tightness after artificial weathering Water-tightness after exposure to chemical substances - NaCl, Ca(OH) ₂ , H ₂ SO ₃ solutions water-tight at pressure of 60 kPa |
| Hazardous substances | Ingredients do not contain any hazardous substances. |

11. MOREOVER, THE PRODUCT PROVES FOLLOWING FEATURES

| Characteristic | Property | Technical specifications |
|--|---------------------------|--------------------------|
| Compression strength | max 0.33N/mm ² | ČSN EN ISO 604 |
| Resistance to tensile stress of semiproduct | | |
| method A (thickness 1 mm) | | ČSN EN 12311-2 |
| longitudinal direction | 700N/50mm | |
| transversal direction | 700N/50mm | |
| Resistance to tensile stress of semiproduct | | |
| corpuscle according to ISO 1798 | | ČSN EN 12311-2 |
| longitudinal direction | 19N/mm ² | |
| transversal direction | 19N/mm ² | |
| Drawability, longitudinal | 230% | |
| Drawability, transversal | 230% | |