SINTEF Technical Approval

TG 20612

Issued first time: 16.07.2020
Revises:
Amended: 16.10.2020
Valid until 01.09.2025
Provided listed on
www.sintefcertification.no

SINTEF confirms that

Bauder Pont EP 5 GA, waterproofing sheet for parking decks

has been found to be fit for use in Norway and to meet the provisions regarding product documentation given in the regulation relating to the marketing of products for construction works (DOK) and regulations on technical requirements for building works (TEK), with the properties, fields of application and conditions for use as stated in this document

1. Holder of the approval

Bauder AS
Lindebergveien 1
2016 Frogner
Norway
www.bauder.no

2. Product description

Bauder Pont EP 5 GA is a waterproofing membrane for parking decks made of SBS modified bitumen, covered on the upper face by sand and reinforced with polyester glass felt. Joints can be torched or hot air welded.

Measures, tolerances and weight of the reinforcement are shown in Table 1.

Table 1
Measurements, tolerances for Bauder Pont EP 5 GA

Property	Measure	Unit	Tolerance
Thickness	5	mm	± 0,1
Area weight	5,7	kg/m²	+10 % / -5 %
Width	1	m	± 1 %
Roll length	8,0	m	+2 % / -0 %
Weight of reinforcement	250	g/m²	-

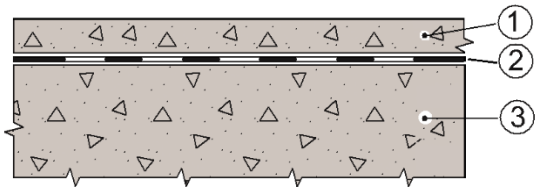
Measured according EN 1848-1 and EN 1849-1

3. Fields of application

Bauder Pont EP 5 GA is primary concepted to be used as waterproofing membrane between the upper wearing course of concrete or asphalt and the lower bearing system of reinforced concrete. See Fig. 1.

For constructions shown in Fig. 1, the membrane can be laid horizontally when integrally casted wear layers have a slope towards gutter and drain of at least 1:100.

For parking decks the slope and the distance to the nearest gutter has to be considered regarding to the amount of snow and rain which can possibly occur on the parking deck with respect to overlying roof constructions.



1	Wearing course of reinforced concrete or warm mastic asphalt	3	Structural deck
2	Bauder Pont EP 5 GA		

Fig. 1
Parking deck with wearing course of concrete alternatively of asphalt.

4. Properties

Material properties
Properties for fresh material are shown in Table 2.

Properties related to fire
Bauder Pont EP 5 GA is not classified according EN 13501-5.

Durability
Bauder Pont EP 5 GA has been tested for durability with satisfactory results.

5. Environmental aspects

Substances hazardous to health and environment
Bauder Pont EP 5 GA contains no hazardous substances with priority in quantities that pose any increased risk for human health and environment. Chemicals with priority include CMR, PBT or vPvB substances.

Waste treatment/recycling
Bauder Pont EP 5 GA shall be sorted as residual waste. The product shall be delivered to an authorized waste treatment plant for energy recovery.

Environmental declaration
No environmental declaration (EPD) has been worked out for Bauder Pont EP 5 GA.

Table 2
Product properties for fresh material of Bauder Pont EP 5 GA waterproofing sheet for parking decks

Property		Test method EN	DoP [1]	Control limits [2]	SINTEF's recommended minimum performance [3]	Unit
Dimensional stability		1107-1	-	± 0.6	≤ ± 0.6	%
Flexibility at low temperature	- upper face - lower face	1109-1	≤ -20	≤ -20 ≤ -20	≤ -15	°C
Flowresistance at elevated temperature		1110	-	≥ 115	≥ 90	°C
Watertightness	- 10 kPa/24 h - 60 kPa/24 h - 150 kPa/1 h	1928 (A) and 1928 (B)	-	Tight Tight Tight	Tight	-
Resistance to tearing (nail shank)	- Longitudinal - Transversal	12310-1	-	≥ 300 ≥ 300	≥ 150	N
Tensile strength	- Longitudinal - Transversal	12311-1	900 ± 100 900 ± 100	≥ 800 ≥ 800	≥ 600	N/50 mm
Elongation	- Longitudinal - Transversal	12311-1	45 ± 10 45 ± 10	≥ 35 ≥ 35	≥ 10	%
Peel resistance of joint	- Average - Maximum	12316-1	-	≥ 240 ≥ 280	≥ 50 - [4]	N/50 mm
Shear resistancce of joints	- Longitudinal - Transversal	12317-1	-	≥ 900 ≥ 900	≥ 600	N/50 mm
Resistance to	- Impact +23 °C - Impact - 10 °C - Statik load	12691 (A) 12691:2001 12730 (A)	- - -	≥ 1500 ≤ 20 ≥ 20	≥ 500 ≤ 30 ≥ 20	mm mm diam. kg
Watertightness after stretching at low temp. (10% elongation at -10 °C)		13897	-	Tight	Tight	-

[1] The manufacturers Declaration of performance, DoP.
[2] Control limit shows values that the product has to satisfy during internal factory production control and audit testing.
[3] SINTEF's recommended minimum performance in SINTEF Technical Approval for single layer bituminous waterproofing.
[4] For fully welded overlap joints, SINTEF has requirements for minimum recommended value for average peel resistance. Value for maximum peel resistance is usually not required.

6. Special conditions for use and installation

Design considerations

Bauder Pont EP 5 GA shall be installed in accordance with the vendor´s installation manual and the principles mentioned in "TPF informs no. 5" published by Takprodusentenes Forskningsgruppe, see www.tpf-info.org and SINTEF Building Research Design Guides.

- *525.207 Kompakte tak*
- *525.304 Terrasse på etasjeskiller av betong for lett eller moderat trafikk*
- *525.307 Tak for biltrafikk og parkering*
- *544.203 Asfalttakbelegg. Egenskaper og tekking*
- *544.204. Tekking med asfalttakbelegg eller takfolie. Detaljløsninger*

The membrane shall be mounted fully torched to the load-bearing concrete structure. Overlap joints shall be welded either with gas flame or hot air.

Underlay

The underlay must be dry and clean and have a smoothness corresponding to float-finished concrete. Concrete elements must be connected to each other, and the joints between the elements must be casted. Gaps larger than 2-3 mm between the elements must be filled in.

Ballast

Necessary ballast needs to be calculated according EN 1991-1-4 Eurocode 1: Loads on constructions – Part 1-4: General loads – Wind loads and “TPF Informs No. 5”.

Bauder Pont EP 5 GA is intendent to be used as waterproofing membrane under wearing course of warm mastic asphalt or concrete. Bauder Pont EP 5 GA is not intendent to be used underneath intensive or extensive green roofs.

Protection and tightness test

The membrane must be protected immediately after installation and should be tested for leaks before it is built into the construction. The membrane must be protected against impact from sharp objects and from objects that can be trampled down in the membrane during the construction process.

Transport and storage

Bauder Pont EP 5 GA must be stored upright on pallets.

7. Factory production control

Bauder Pont EP 5 GA is produced by Paul Bauder GmbH & Co KG, Werk Achim, Germany.

The holder of the approval is responsible for the factory production control in order to ensure that Bauder Pont EP 5 GA is produced in accordance with the preconditions applying to this approval.

The manufacturing of Bauder Pont EP 5 GA is subject to continuous surveillance of the factory production control in accordance with the contract regarding SINTEF Technical Approval.

Paul Bauder GmbH & Co KG has a quality management system which is certified by ESC Cert GmbH according EN ISO 9001, certificate no. 70499/03-18_c.

Paul Bauder GmbH & Co KG has an environmental management system which is certified by ESC Cert GmbH according EN ISO 14001, certificate no. 70499/03-18_e.

8. Basis for the approval

The evaluation of Bauder Pont EP 5 GA is based on reports owned by the holder of the approval.

The evaluation of design and technical solutions are based on recommendations given in SINTEF Building Research Design Guides.

9. Marking

Each roll needs to be marked with manufacturer's name, product description, production date and production code. Bauder Pont EP 5 GA is CE marked in accordance with EN 13969.

The approval mark for SINTEF Technical Approval No. 20612 may also be used.

10. Liability

The holder/manufacturer has sole product responsibility according to existing law. Claims resulting from the use of the product cannot be brought against SINTEF beyond the provisions of Norwegian Standard NS 8402

for SINTEF

Hans Boye Skogstad
Approval Manager