

SINTEF Building and Infrastructure confirms that

## OLDROYD® Torvtaksplate

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

Oldroyd AS  
 Industriveien 1  
 3766 Sannidal  
 Norway  
[www.oldroyd.com](http://www.oldroyd.com)

### 2. Product description

OLDROYD® Torvtaksplate is a green-coloured plastic sheet for use in turfed roof constructions.

OLDROYD® Torvtaksplate is a roll product, made of polypropylene (PP) with density 910 kg/m<sup>3</sup> and 0.5 mm material thickness. OLDROYD® Torvtaksplate manufactures with studs and a pattern of intersecting channels forming a 7 mm air gap between the sheet and the underlying surface, see fig. 1. The sheets have flat edges for overlap joints on both sides. Measures and tolerances for OLDROYD® Torvtaksplate are given in table 1.

Supplementary products for mounting of OLDROYD® Torvtaksplate are specified in table 3.

Table 1  
 Measure and tolerances for OLDROYD® Torvtaksplate

Property	OLDROYD® Torvtaksplate	
	Measure <sup>1)</sup>	Tolerance
Thickness mm	0,5	± 0,05
Spec.weight kg/m <sup>2</sup>	0,5	± 10 %
Total height mm	7	± 5 %
Stand. roll width m	2,08	± 0,01
Stand. roll length m	20	± 0,05

<sup>1)</sup> Measured according EN 1848-2 and EN 1849-2

### 3. Fields of application

OLDROYD® Torvtaksplate can be used in turf roof constructions to protect the roofing felt from the turf. The sheet's studs ensure ventilation and drainage above the roofing felt, and at the same time protect it from root growth. In addition shall the roughness of the sheet avoid that turf material is sliding down over time.

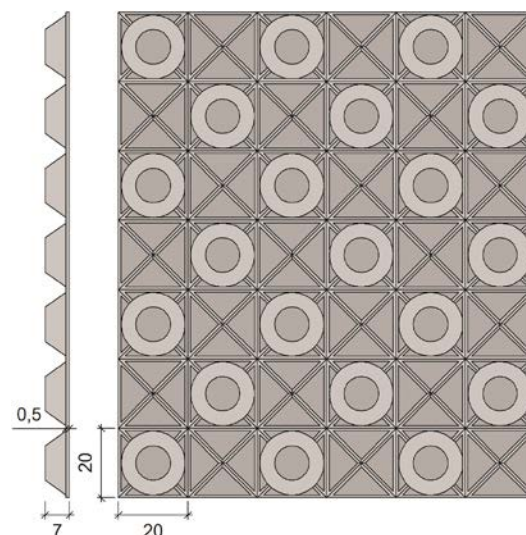


Fig. 1  
 OLDROYD® Torvtaksplate sheet, pattern of channels and studs. Plan and section drawing. Measurements in mm.

### 4. Properties

#### Mechanical material properties

OLDROYD® Torvtaksplate characteristics are given in Table 2.

#### Properties related to fire

Reaction to fire has not been determined for OLDROYD® Torvtaksplate according to EN 13501-1. Product must be separated if it is used in different fire cells.

#### Durability

OLDROYD® Torvtaksplate has been tested and assessed to have acceptable durability for the intended use, shown in this approval.

### 5. Environmental aspects

#### Substances hazardous to health and environment

The product 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.

Table 2  
Product characteristics of fresh material of OLDROYD® Torvtaksplate

Property	Testmethod EN	OLDROYD® Torvtaksplate		Unit
		DoP <sup>1)</sup>	Control limit <sup>2)</sup>	
Water tightness	1928 (A)	Tight	Tight	-
Water vapour resistance	1931	-	1x10 <sup>12</sup> 200	m <sup>2</sup> sPa/kg m (equiv. air layer thickness, s <sub>d</sub> )
Resistance to tearing L: (nail shank) T:	12310 -1:	> 300 > 200	> 300 > 300	N
Tensile strength L: T:	12311-2 (A)	> 300 > 300	> 300 > 300	N/50 mm
Elongation L: T:	12311-2 (A)	- -	> 100 > 100	%
Puncturing - impact at/+23 °C - static load	12691 (A) 12730 (B)	> 350 > 20	> 350 >20	mm kg
Deformation under load measured after 60 hours	13967, Annex B	-	≤ 1,4 35	mm deformation kN/m <sup>2</sup> load

<sup>1)</sup> The manufacturers declaration of performance, DoP

<sup>2)</sup> Control limit shows values the product has to satisfy during internal factory production control and audit testing.

Table 3  
Product specifications for for additional accessories to fix OLDROYD® Torvtaksplate

Component	Material type	Description	Dimensions
Nails with fastening plugs	Hardened, el. galvanised steel nails / PEL (Low density polythene)	Fastener adapted to stud pattern for use on turf roofs or sheathing made of wood	Diameter: 3,0 mm Length: 30 mm to concrete/underroof of boards Length: 60 mm to light weight concrete
Fastening plug for bolt gun	Polypropylene PP or Polyethylene HDPE	Fastening plug	Dimension: 7mm Length: 50mm

*Effect on soil, surface water and ground water*

The leaching properties to soil and water have not been tested.

*Waste treatment/recycling*

The product shall be sorted as residual waste. The product shall be delivered to an authorized waste treatment plant for energy and material recovery.

*Environmental declaration*

An environmental declaration (EPD) has not been worked out according to EN 15804 for the products.

**6. Special conditions for use and installation**

OLDROYD® Torvtaksplate shall be rolled out transvers to the direction of the roof slope, with the studs facing down. Installation starts at the eaves of the roof. The sheet is fastened along the top edge with plugs and nails. Maximum distance between nails should be approximately 100 mm for 2.08 m or wider sheets.

At a roof pitch angle ≥ 25° the joints along the length should have a minimum overlap of 250 mm, and minimum 300 mm at lower pitch. Overlaps at transverse joints should be at least 400 mm.

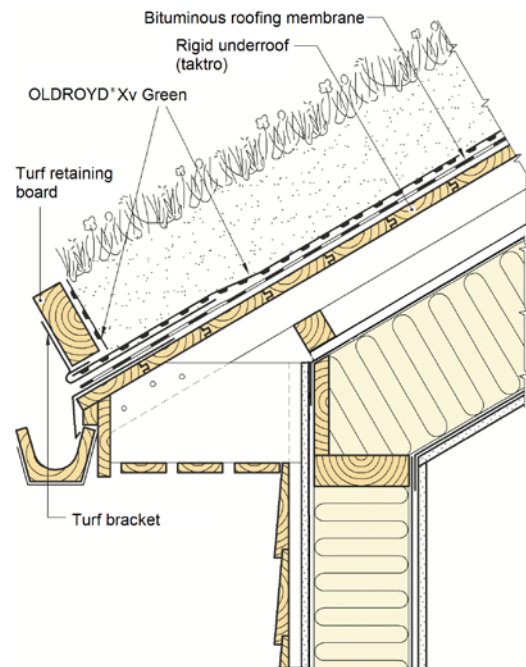


Fig. 2  
Example of OLDROYD® Torvtaksplate used as protection of bituminous roofing membrane in turf roof over heated building.

It is assumed that the use of OLDROYD® Torvtaksplate follows the principles shown in SINTEF Building Research Design Sheet no. 544.803 Torvtak.

#### *Transport and storage*

The rolls shall be stored and transported standing vertically on pallets, protected from sunlight. Pallets may be stacked in two levels, providing the stacks are staggered. Caution must be shown when stacking pallets.

#### **7. Factory production control**

The product is produced by Oldroyd AS, Industriveien 1, 3766 Sannidal, Norway.

The holder of the approval is responsible for the factory production control in order to ensure that the product is produced in accordance with the preconditions applying to this approval.

The manufacturing of the product is subject to continuous surveillance of the factory production control in accordance with the contract regarding SINTEF Technical Approval.

Oldroyd AS; Sannidal has a quality system, certified of KIWA Teknologisk Institut Sertifiserings AS according to EN ISO 9001:2008. Certificate no. 213

#### **8. Basis for the approval**

The approval is based on the verification of properties documented in the following reports:

- SP Sveriges Tekniska Forskningsinstitut, Report F612257, dated 04.12.2006, Test as damp proof membrane

- SP Sveriges Tekniska Forskningsinstitut, Report F623041, dated 21.01.2006, Test as damp proof membrane
- Sintef Byggforsk, Report 3D0971, dated 01.09.2010, testing of material characteristics

#### **9. Marking**

OLDROYD® Torvtaksplate shall be marked at least with name of producer, product name og production date or batch-number. The product is CE marked in accordance with EN 13967. The approval mark for SINTEF Technical Approval No. 20068 may also be used.



Approval mark

#### **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 Building and Infrastructure

A handwritten signature in blue ink that reads 'Hans Boye Skogstad'.

Hans Boye Skogstad  
Approval Manager