

SINTEF Technical Approval

TG 2029

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 Amended:
 Valid until 01.09.2026
 Provided listed on
www.sintefcertification.no

SINTEF confirms that

AeroDek Tradition Plus

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

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2. Product description

AeroDek Tradition Plus roofing-tile panels are cold-rolled sheet-steel roofing panels, shaped with 7 modules as shown in Fig. 1. The panels have standard dimension 1325 x 415 mm.

Fig. 2 illustrates the composition of the roofing-tile panels. Nominal sheet-steel thickness is 0.42 mm. The roofing-tiles are coated with 250g/m² zink-magnesium. The upper side has an additional 7-10 µm polyurethane coating, a coloured 200 µm (dry) acrylic coating, stone granules and an approximately 10 µm clear acrylic coating. The underside is additionally coated with a primer. The weight of the panels for finished laid roof surface is approx. 6.7 kg/m².

In addition to standard roofing-tile panels, separate panels for ridge and gables in the same material are delivered. Bracket parts are platisol treated.

3. Fields of application

AeroDek Tradition Plus can be used in hazard class 1-6 in fire class 1, 2 and 3. The roofing-tile panels is used as roofing on ventilated, sloping roofs where the panels are laid on wooden battens.

4. Properties

Load-carrying capacity

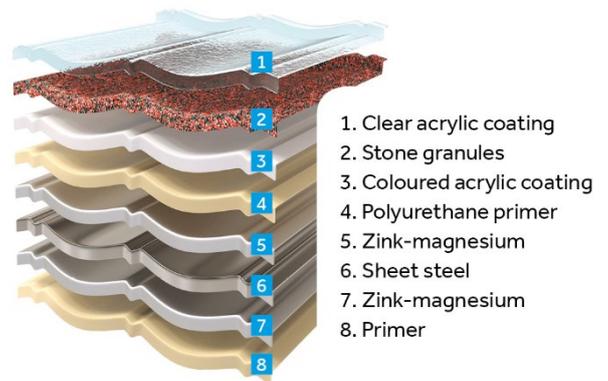
The roofing-tile panels were test-loaded with an evenly distributed load up to 21 kN/m² without any breakage being registered or the occurrence of any permanent deformations. AeroDek Tradition Plus can be regarded as having satisfactory strength and rigidity at all relevant snow loads experienced in Norway.

Experiments with static point loads with contact surface 10 cm x 10 cm indicate that permanent deformation occurs at loads in excess of 1 kN.

During testing, roofing-tile panels fastened to the battens have withstood wind loads corresponding to wind speeds in the order of 75 m/s (270 km/h).



Standard AeroDek Tradition Plus roofing-tile panel
 Figure: BMI Norge AS



Composition of AeroDek Tradition Plus roofing-tile panel
 Figure: BMI Norge AS

1. Clear acrylic coating
2. Stone granules
3. Coloured acrylic coating
4. Polyurethane primer
5. Zink-magnesium
6. Sheet steel
7. Zink-magnesium
8. Primer

SINTEF is the Norwegian member of European Organisation for Technical Assessment, EOTA, and European Union of Agrément, UEAtc

Properties related to fire

AeroDek Tradition Plus fulfils the requirements of class B_{ROOF(t2)} according to EN 13501-5. The classification applies for mounting on combustible and non-combustible substrates with density $\geq 12,5\text{kg/m}^3$. The test is performed according to CEN/TS 1187, test 2.

Durability

Since the edges are acrylic coated at the factory, AeroDek Tradition Plus has a sufficient corrosion protection. Generally, one must be aware that roofing based on sheet steel may suffer corrosion damage over time in areas where an especially corrosive atmosphere exists.

Tightness against precipitation

AeroDek Tradition Plus are sufficient impervious to driven-in rain and snow and can in most cases be laid on under-layer roofs with loose overlap.

5. Environmental aspects*Substances hazardous to health and environment*

AeroDek Tradition Plus 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.

Effect on soil, surface water and ground water

The leaching properties of the AeroDek Tradition Plus are evaluated to have no negative effects on soil or ground water.

Waste treatment/recycling

AeroDek Tradition Plus shall be sorted as metal on the building/demolition site. The product shall be delivered to an authorized waste treatment plant for material recovery.

Environmental declaration

An environmental declaration (EPD) has been worked out according to EN 15804 for AeroDek Tradition Plus. For complete documentation, see EPD nr. MRPI® 1.1.00170.2021.

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

AeroDek Tradition Plus can generally be used on roofs with a slope as low as 15°. The panels should normally be installed over an underlayer roof. AeroDek Tradition Plus can be used at a roof pitch down to 8° provided that the roofing underlay has satisfactory documentation for use at such roof slopes.

Substrate

Where a fire classification of the roof is required, the panels may only be laid on a surface as specified in section 4 regarding *Properties related to fire*.

Installation shall be performed according to regulations in the "Veiledning om tekniske krav til byggverk" §11-9 and further description in "TPF informerer nr. 6" *Branntekniske konstruksjoner for tak* published by Takprodusentenes Forskningsgruppe (TPF), see: www.tpf-info.org.

Installation

The roofing-tile panels should be positioned on battens spaced 369 mm apart and fastened at the front edge with AeroDek nails or screws. Four nails/screws should be used for each panel, and the screws are placed in the "fold" under the highest profile. The fastening method necessitates accurate positioning/spacing of the battens.

Great care must be taken to ensure that the roofing-tile panels are not damaged during installation, both with regard to walking and nailing (see separate guide from suppliers). A special repair kit is available for rectifying accidental damage.

Cutting should be executed using either sheet-metal shears or circular saw with a special blade for cutting steel. The circular-saw blade should have a maximum cutting speed of 50 m/sec. Neither angle grinder nor high-speed saw should be used as these tools generate excessive heat at the cutting edge. Exposed edges should be brushed with corrosion-protective paint.

The roofing-tile panels should generally be installed in accordance with the principles for penetrations in the roof surface, connections to associated building components and other guidelines given in SINTEF Building Research Design Guides 544.101 *Tekking med takstein*, *Materialer, legging og forankring* and 544.103 *Tekking med profilerte metallplater, inkludert gjennomføringer i takflaten, tilslutning til andre bygningsdeler*.

The need for snow guards can be assumed to be the same as for roof coverings of bitumen, shingle and coarse concrete tile, see SINTEF Building Research Design Guide 525.931 *Snøfangere*. AeroDek Tradition Plus has been tested at a roof slide angle of up to 30°. Project designers must decide on the need for snow guards based on the design of roof construction and local climate.

Maintenance

As a rule, the roof should be inspected at least twice a year - spring and autumn. Each spring it should be examined whether ice or snow has caused damage. Check especially that all the fittings are in order and that bushings around chimneys, pipes and skylights are tight. Snow can be removed with regular method. Avoid scratching the surface by leaving 15 to 20 cm of snow left on the roof.

Traffic on the roof

Deformation of the roofing-tile panels due to overloading can lead to damage of the corrosion protection. Roofing with AeroDek Tradition Plus must therefore always be supplemented by roof steps, roof bridges, etc., wherever access to the roof is needed for maintenance purposes.

Walking on the sheets must only be done with caution. Soft-soled shoes must be worn, and the weight placed on the balls of the feet when walking on the roof. The foot should be positioned in the valley of the undulation directly above the roofing batten.

7. Factory production control

AeroDek Tradition Plus is produced in Belgium for BMI Norge AS

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 AeroDek Tradition Plus is subject to continuous surveillance of the factory production control in accordance with the contract regarding SINTEF Technical Approval.

The producer has a quality management system certified according to EN ISO 9001 and EN ISO 14001.

8. Basis for the approval

The evaluation of AeroDek Tradition Plus 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

The packaging of the panels is marked with the manufacturer and product name. The product is marked with the production number, production date and product name.

AeroDek Tradition Plus is CE-marked in accordance with EN 14782.

The approval mark for SINTEF Technical Approval TG 2029 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



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