



## TN SHINGLES MANSARD PIR

Solution for a pitched roof with thermal insulation of PIR boards



### Area of application

Pitched roofs of residential houses and administration buildings with a slope of 12° or greater with PIR thermal insulation.

### Advantages



Energy efficiency



Reliable waterproofing



Durability



Does not require diffusion membrane

### System composition and material consumption rates

No.	Material	Unit	Dimensions	Consumption rate*
1	TECHNONICOL roofing shingles	m <sup>2</sup>	width: 1000 mm height**: 317-349 mm	1.00***
2	Underlayment membrane of UNDERLAY series	m <sup>2</sup>	width: 1 m length****: 15-25 m	1.10
3	Solid base (OSB-3 or plywood)	–	acc. to project	acc. to calculation
4	Counter battens	–	acc. to project	acc. to calculation
5	Ventilation space battens	–	acc. to project	acc. to calculation
6	NICOBAND self-adhesive sealant tape	pc	width: 100 mm length: 3 or 10 m	acc. to calculation
7	LOGICPIR boards with aluminium foil covering	m <sup>2</sup>	1.2 × 0.6 m	acc. to calculation
8	Vapor barrier film TECHNOMICOL ALPHA	m <sup>2</sup>	1.5 × 50 m	1.07
9	Wood decking	–	–	–
10	Rafter system	–	–	acc. to calculation

\*The consumption rates are taken conditionally – according to the manufacturer's recommendations.

\*\*The total height of the shingle depends on the chosen collection.

\*\*\*The quantity of sqm per bundle indicated on the package already includes overlapping coefficient. The consumption may increase due to cuttings subject to the complexity of roofing design and the chosen collection.

\*\*\*\*The length of the roll depends on the chosen membrane.

### Technical description

The solution represents a reliable watertight system for pitched roofs with thermal insulation made from PIR boards. Innovative boards LOGICPIR on the base of polyisocyanurate with aluminium foil covering are used to arrange effective thermal insulation, therefore significantly increasing the energy efficiency of the overall construction. The very rigid and perfectly flat material has high compressive strength and a record low thermal conductivity value. From the inside of the construction, the PIR boards are protected from the vapor ingress by vapor barrier films of TECHNOMICOL ALPHA series. From the opposite side, the boards' joints are sealed with NICOBAND self-adhesive sealant tape, which removes the necessity of a diffusion membrane.

The base for roofing materials must be solid, rigid and flat, and is normally made of OSB-3 or exterior plywood with increased moisture resistance. SBS-modified bitumen membranes of UNDERLAY series are used as an underlayment for roofing shingles over the whole roof surface. These lightweight materials provide secure protection from wind-driven rain. For the zones of valleys and eaves, one should apply self-adhesive membranes UNDERLAY NEXT SELF or ULTRAFLEX SA; the remaining roof can be covered with UNDERLAY PRO (S) 500, UNDERLAY BASE 1500 or UNDERLAY BASE 900 membranes that are fixed mechanically. TECHNOMICOL roofing shingles serve as the main roof covering, providing waterproofing and an attractive appearance. The great variety of patterns and colors allows making a choice that best suits the chosen house design. The material is fixed with roofing nails, the quantity of which depends on the roof slope and the chosen shingles collection.