



VYINS-PIR

Polyisocyanurate (PIR) Insulation Board

DESCRIPTION

VYINS-PIR is a high-performance rigid polyisocyanurate (PIR) insulation board engineered for advanced thermal efficiency in building envelope systems. Featuring a closed-cell foam core with specialized facings, it delivers outstanding insulation performance, excellent fire behavior, and superior dimensional stability.

VYINS-PIR is widely used in roofing, wall, and foundation applications where high thermal resistance and space-saving insulation are required.

BENEFITS

- **Ultra-Low Thermal Conductivity**
Achieves high insulation performance with minimal thickness
- **High Compressive Strength**
Suitable for load-bearing roof and floor systems
- **Excellent Fire Performance**
Improved fire behavior compared to standard PUR boards
- **Moisture Resistance**
Closed-cell structure limits water absorption
- **Lightweight & Easy Installation**
Reduces structural load and improves handling efficiency
- **Dimensional Stability**
Maintains performance under temperature variation
- **Energy Efficient**
Supports long-term building energy savings

APPLICATIONS

- Flat Roofing Systems (mechanically fastened / adhered systems)
- Pitched Roof Insulation
- External & Internal Wall Insulation
- Cavity Wall Systems
- Floor Insulation (under screed / slab)
- Cold Storage & Industrial Buildings
- Building Envelope Systems requiring high thermal performance

INSTALLATION

1. **Substrate Preparation**
Ensure substrate is clean, dry, and structurally sound
2. **Board Placement**
Lay boards tightly with staggered joints to minimize thermal bridging
3. **Fixing Method**
Mechanical fastening (with plates/disks)
Adhesive bonding (PU adhesive / bitumen depending on system)
4. **Joint Treatment**
Seal joints if required using compatible tapes or sealants
5. **System Integration**
Compatible with VYKOL membrane systems (VYPVC / VYTPO / VYBIT / VYLAY)

STORAGE & SHELF LIFE

- Store flat on pallets in dry, well-ventilated conditions
- Protect from direct sunlight and prolonged moisture exposure
- Do not stack excessively to avoid deformation
- Shelf life: Unlimited under proper storage conditions

DIMENSIONS & PACKAGING

Parameter	PIR	PIR PLUS	PIR ALU
Surface	Cementitious facers reinforced with glass fibres	Organic facers reinforced with glass fibres	Reflective aluminum foil composite facers
Underface	Cementitious facers reinforced with glass fibres	Organic facers reinforced with glass fibres	Reflective aluminum foil composite facers
Thickness	13 mm~100 mm (0.5 to 4 in)		
Dimensions	1.22 x 2.3m (4' x 7'7")		
Edge	Butt edge(BE) or shiplap(SL)		

TECHNICAL DATA

Property	Value (all types include)	Test Method
Compressive Strength	$\geq 150\text{Kpa}$	ASTM D 1621
Density	$\geq 36\text{Kg/m}^3$	ASTM D 1622
Linear Dimensional Stability	$\leq 2.0 \%$	ASTM D 2126
Water Absorption	$\leq 3.0\%$	ASTM C 209 ASTM D 2842
Reaction to fire	B1	EN 13501-1
Declared thermal conductivity at 25°C	$\leq 0.024\text{W/m}\cdot\text{k}$	ASTM C518