

Tarecpir®

Rigid Closed-Cell Polyisocyanurate (PIR) Insulation

PRODUCT VALUE PROPOSITION

One engineered PIR platform — offered in: Bunstock, boards, and 360 pipe insulation — covering -328°F to +350°F and meeting ASTM C591 across five densities, from a single specification-supported source.

Why Tarecpir?

Full-Range Thermal Performance

Service temperatures from -328°F to +350°F support cryogenic, below-ambient, and elevated-temperature process applications. Low, stable thermal conductivity helps reduce heat gain or loss and supports condensation control across the operating range.

Specification-Ready Compliance

Available in five densities meeting applicable ASTM C591 requirements, providing engineers with a consistent material platform across a range of mechanical insulation applications.

Asset Protection

High closed-cell content and low moisture absorption help limit water intrusion and moisture retention within the insulation system — important considerations in managing corrosion under insulation (CUI) risk. Dimensional stability helps maintain insulation system integrity over time.

One Platform, Three Forms

Bunstock, boards, and prefabricated 360 pipe insulation come from one qualified source — simplifying submittals, reducing vendor complexity, and keeping the whole system on one traceable PIR family.

Fabrication Versatility

Manufactured from high-quality bunstock, Tarecpir is fabricated into flat boards, preformed pipe insulation, pipe supports, curved segments, and custom shapes for valves, fittings, vessels, and other applications.

Backed by Kingspan

Technical data, specification guidance, submittal support, and product technical support help engineers evaluate and specify PIR insulation for project-specific requirements.

The Tarecpir Material Platform

Full-Range Thermal Performance

Tarecpir is a closed-cell PIR insulation platform manufactured by Kingspan for a broad range of thermal insulation and OEM applications. Supplied as bunstock, boards, and prefabricated 360 pipe insulation. All share the same material chemistry and service range, and any form can be fabricated from any type: density is selected for the mechanical load and thermal demand at each location, not by the product form. A higher-temperature grade, Tarecpir-HT 2.5, extends the platform to +350°F for elevated-temperature service.

Tarecpir Bunstock & Boards

Kingspan-manufactured PIR insulation for fabrication and direct-use applications.

Forms: Bunstock & Boards

Densities: 2.0–6.0 pcf, plus HT/2.5

Applications: Insulated panels, vessels & tanks, industrial equipment, OEM components, and custom fabricated shapes.

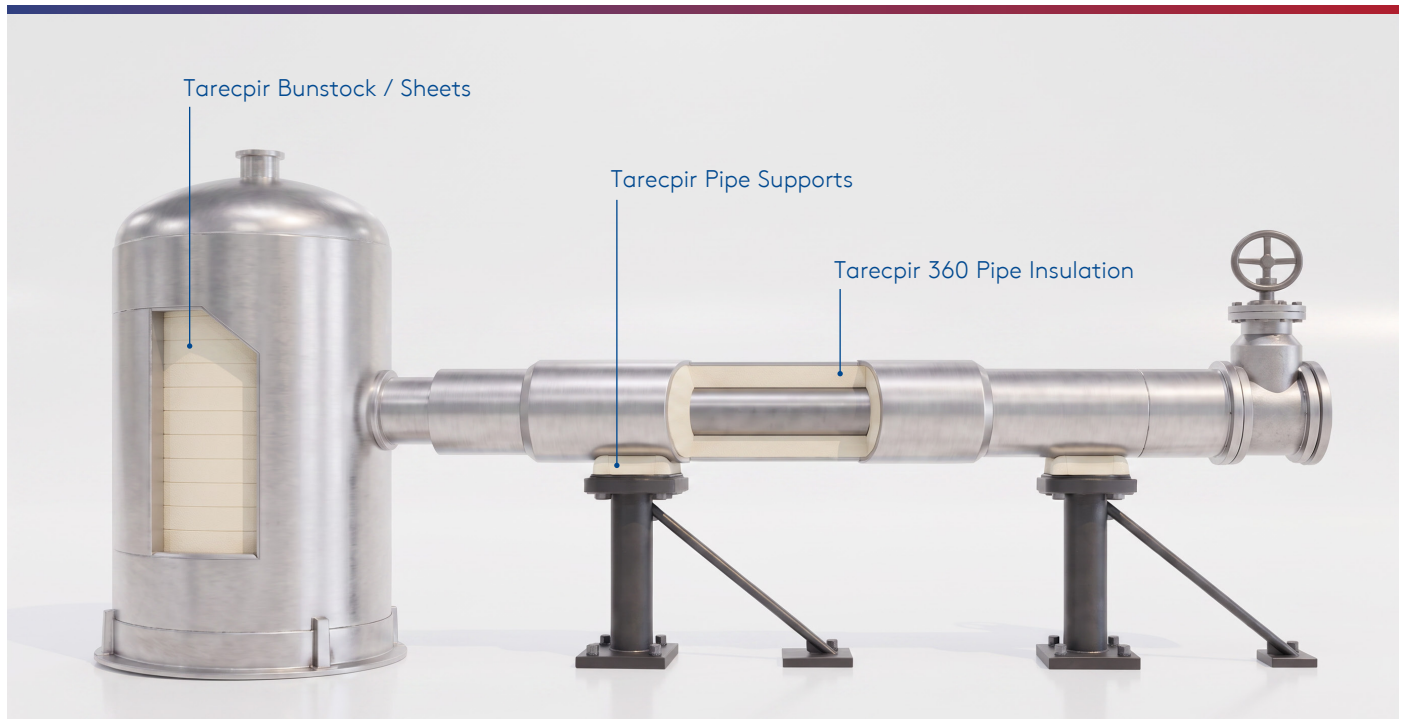
Tarecpir 360 Pipe Insulation

Prefabricated PIR pipe insulation, fittings, and load-bearing support components.

Fabricated Forms: 180° half-sections assembled to provide 360° pipe coverage, multi-layer builds, elbows, tees, valve, and fitting covers and load-bearing pipe support inserts.

Density selection: 2.0–6.0 pcf, plus HT/2.5 - Based on thermal and mechanical requirements.

Applications: Straight-run cryogenic and below-ambient pipe, fittings, elbows, and valves, supports.



Density Grades

The platform spans five ASTM C591 Types plus a higher-temperature HT grade. Any of the three product forms can be fabricated from any type; density is chosen for the mechanical load and thermal demand at each location and compressive strength increases with density.

Grade	ASTM C591 Type	Minimum Density pcf (kg/m³)	Compressive Strength, psi*	Typical Selection
Tarecpir 2.0	Type IV	2.0 (32)	≥22	General-purpose below-ambient insulation
Tarecpir 2.5	Type II	2.5 (40)	≥35	Low-temperature applications down to -328°F (-200°C)
Tarecpir 3.0	Type III	3.0 (48)	≥45	Applications requiring increased compressive strength
Tarecpir 4.0	Type V	4.0 (64)	≥80	Load-bearing insulation & pipe support inserts
Tarecpir 6.0	Type VI	6.0 (96)	≥125	Higher-load pipe support & concentrated load applications
Tarecpir HT/2.5	Type II HT †	2.5 (40)	≥35 †	Elevated & dual-temperature service

Any product form can be fabricated from any type; density is selected for the load and thermal demand at each location. *Typical compressive resistance parallel to rise (ASTM D1621)

Physical Properties by Grade

Property (Test Method)	Type IV 2.0 pcf	Type II 2.5 pcf	Type II 2.5 pcf HT †	Type III 3.0 pcf	Type V 4.0 pcf	Type VI 6.0 pcf
k @ +75°F mean (C518, aged)	0.19	0.19	0.19	0.20	0.19	0.22
Water absorption, % vol (C272)	≤2	≤1	≤1	≤1	≤1	≤0.8
Water vapor permeance, perm-in (E96)	≤4	≤3.5	≤3.5	≤3	≤2.5	≤2.0
Closed-cell content, % (D2856)	≥90	≥90	≥90	≥90	≥90	≥90
Leachable chloride, ppm (C871)	84	58	55	54	43	40
Surface burning, FS /SD (E84)	≤25 / ≤250	≤25 / ≤200	≤25 / ≤400	≤25 / ≤100	≤25 / ≤100	≤25 / ≤100

† Type II 2.5/HT is the grade for service between -328°F and 350°F; confirm ASTM classification, service temperature, and certified values from its product data sheet.

Target Markets & Applications

Primary segments. LNG | Industrial Refrigeration & Ammonia | Data Centers | Pharmaceutical | Petrochemical & Industrial Process

- Piping Systems — Low-temperature, chilled-water, refrigeration, dual-temperature & cycling service
- Vessels, Tanks & Industrial Equipment — cold-service and process insulation
- Pipe Supports & Load-Bearing Insulation — fabricated inserts for pipe supports, saddles & hanger supports
- Insulated Panels & OEM Components — walk-in coolers/freezers, equipment & manufactured assemblies
- Custom-Fabricated Shapes — fittings, valves, vessel heads & complex geometries

Standards & Compliance

- ASTM C591 — Unfaced Preformed Rigid Cellular Polyisocyanurate Thermal Insulation; requirements vary by Type and density
- ASTM C518 / C177 — Thermal conductivity, including low-temperature and cryogenic performance
- ASTM D1621 / D1622 — compressive resistance / density
- ASTM D6226 / C272 / E96 — closed-cell content, water absorption and water vapor transmission
- ASTM D2126 — dimensional stability under specified temperature and humidity conditions
- ASTM C871 — Leachable chloride, fluoride, silicate and sodium ions
- ASTM E84 — surface burning characteristics
- ASTM C411 — Hot-surface performance
- FM 4880 · Miami-Dade NOA — applicable to the 2.0 pcf grade; verify current listings and approvals by grade

Handling, Storage & Sustainability

- **Untrimmed Bunstock** — May be stored outdoors without protective covering. Store off the ground and avoid standing water
- **Boards & Fabricated Components** — Store dry and protect from prolonged UV exposure and weather prior to installation
- **Handling** — Handle material to minimize impact and edge damage. Follow applicable SDS guidance for safe handling and fabrication
- **Sustainability** — Low-GWP blowing agent, zero ozone-depletion potential



Please scan the QR code for the most recent product information.

Kingspan Insulation LLC
6120 Powers Ferry Road NW | Suite 350
Atlanta | Georgia 30339

T: +1 (800) 336 2240
E: info@kingspaninsulation.us
www.kingspaninsulation.us

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