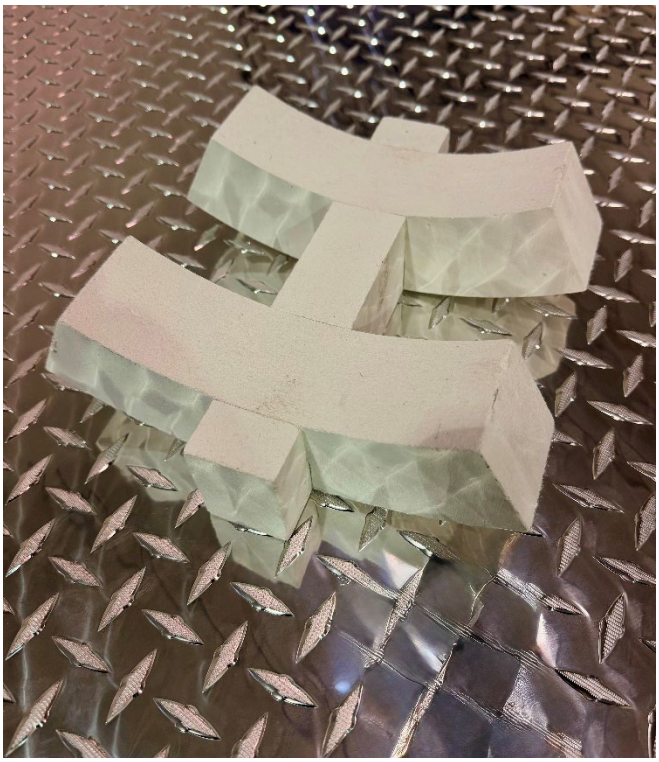
Product Data Sheet
Core-Lok HT



Product Overview

Core-Lok HT is an internal structural reinforcement system designed to replace rigid insulation sections at pipe support locations.

Traditional weight-supporting insulation materials—including calcium silicate, phenolic foam, cellular glass, and polyisocyanurate—are routinely installed at supports despite being inherently vulnerable to point loading. Over time, this concentrated stress leads to crushing, cracking, and deformation, compromising both structural integrity and thermal performance, while increasing the risk of injury to personnel.

In addition to structural failure, traditional hard sections introduce a thermal performance penalty at each support location. Calcium silicate and cellular glass exhibit significantly reduced thermal performance than adjacent insulation materials, creating localized thermal bridges that increase heat loss over the life of the system.

Core-Lok HT mitigates both failure modes by introducing high-strength, small profile composite reinforcement into the insulation system. Core-Lok HT inserts are engineered to combine incredible compressive strength with a proprietary interlocking configuration allowing the insulation system to maintain unparalleled structural characteristics and consistent thermal performance while reducing long-term maintenance, energy loss, and lifecycle costs.

Physical Properties

Property	Value
Compressive Strength	17,000 psi
Flexural Strength	4,500 psi
Operating Temperature	200°F – 900F° *

**For systems operating below 200°F, use of standard Core-Lok is recommended.*

Standards

- ASTM C585, Dimensional Standards for Rigid Pipe Insulation Sizing
- ASTM E84, Surface Burning Characteristics – flame spread ≤ 25
- ASTM C1136, Vapor Retarders (ASJ patch)
- ASTM E96, Water Vapor Transmission (ASJ patch)
- ASTM D695, Compressive Strength
- ASTM D790, Flexural Strength

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Features

Core-Lok HT addresses point loading at supports with a high-strength internal structural insert.

Hard sections commonly fail where insulation bears the full weight of the piping system across a narrow contact area.
Core-Lok HT removes the weak link by providing an internal, high-strength structural insert that:

- Distributes load without crushing insulation
- Maintains insulation geometry at supports
- Maximizes thermal continuity across the piping system
- Reduces localized energy loss associated with traditional hard section designs

By minimizing the volume of load-bearing material required at supports, Core-Lok HT significantly reduces thermal bridging compared to traditional insert configurations.

Core-Lok HT hard sections are supplied with 120° galvanized steel shields, externally labeled with pipe size and performance data. For larger pipe diameters and roller hanger configurations, inserts include an additional steel roll plate to accommodate load transfer requirements.

Thermal & Code Performance Considerations

Pipe supports represent a disproportionate source of thermal loss in insulated piping systems. In conventional designs, calcium silicate hard sections can reduce thermal efficiency by approximately one-third at each support location.

Because supports typically occur at regular intervals, these localized losses contribute materially to overall system inefficiency and operating cost.

For HVAC and plumbing systems, the International Energy Conservation Code (IECC) does not permit reductions in thermal performance at supports. Where insulation materials with inferior thermal properties are used, increased thickness is required to meet code-mandated performance.

Core-Lok HT eliminates this issue by reducing the extent of thermally inferior materials at supports, enabling designers to maintain compliance without increasing insulation thickness or introducing nonconforming assemblies.

Applications

Core-Lok HT is suitable for use in conjunction with fiberglass, ceramic fiber, mineral wool, and other common high-temperature insulation materials where structural reinforcement is required at pipe supports.

Inserts may be fabricated for standard and non-standard pipe outside diameters, including specialty piping systems, while maintaining compatibility with ASTM C-585 outside diameter figures.

Notes

(1) Information contained in this data sheet is subject to change without notice due to evolving supply chains, code requirements, and industry standards.

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