



# EG-NCUI TECHNICAL SPECIFICATION

ENERGY SAVING LAYERED INSULATION

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## Preformed Pipe & Board Material EG-NCUI Type

### General Product Information

ESLIN™ Industrial Insulation: Preformed unbreakable, reusable pipe and board insulation with superior strength, high compressive resistance, and unmatched life-cycle performance. A proprietary manufacturing process combines specially processed high-density E-glass needled mat with ‘inorganic’ binder materials to form a non-combustible, high-temperature insulation with superior thermal performance and excellent fire resistant properties. Two-piece pipe cover is available in pipe sizes from 1/2” (15mm) to 40” (1000mm) in diameter — sectional pieces are not required for large pipe sizes. Board materials are available both in flat form or preformed to fit the exact curvature of any vessel, tank, duct or exchanger. All ESLIN™ material is available in single thicknesses up to 4” (100mm). ESLIN™ NCUI Type is our basic and most cost-competitive alternative..

### Description & Common Applications

ESLIN™ Pipe and Board insulation is ideal for steam and process systems operating at temperatures up to 1400°F (760°C) where energy conservation, personnel protection and fire-resistance matter. It is especially recommended for use in high temperature industrial environments. Diverse applications include piping, ducts, vessels, tanks and exchangers in power plants, refineries, geothermal, concentrating solar power (CSP), petro-chemical, bio-fuels and exhaust systems.

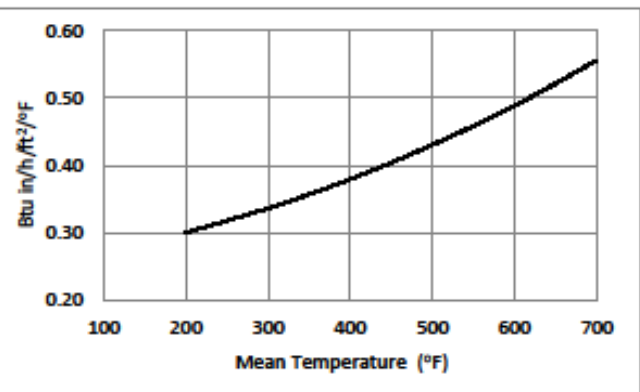
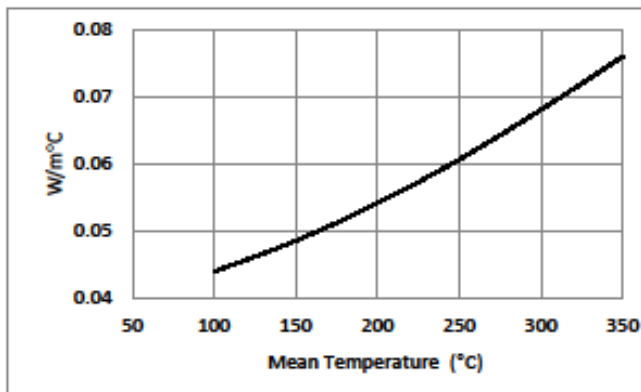
### Specification Compliance

- ASTM C547 (Type I, II, IV, V)
- ASTM C795 (Per test methods C871 & C692) \*
- ASTM C585 (ID/OD Dimensions)
- ASTM E136 (Noncombustible)
- ASTM E162 (Flammability)
- ASTM E662 (Smoke Generation)
- CAN/ULC S102 (Surface Burning)
- CAN/ULC S114 (Noncombustible)
- MIL-I-24244 (all versions including B & C)
- NRC Reg. Guide 1.36
- ASTM C547-A1 NAVSEA Compressive Resilience

### Physical Properties

- ASTM C 302 Density (Dry) Average
  - 12.5 lb/ft<sup>3</sup> (200 kg/m<sup>3</sup>) Pipe Cover
  - 11.2 lb/ft<sup>3</sup> (180 kg/m<sup>3</sup>) Board Material
- ASTM C 165 Compressive Resistance
  - 28.5 psi (196 kPa) @ 5% Compression
- ASTM C 356 Dimensional Stability (Linear Shrinkage)
  - < 0.27% @ 1200°F (650°C)
- ASTM C 411, C 447 Maximum Service Temperature
  - 1400°F (760°C)
- ASTM E 84 Surface Burning Characteristics
  - Flame Spread / Smoke Developed = 0/0

### Thermal Conductivity (k)



Please visit our website at: [WWW.ESLIN.US](http://WWW.ESLIN.US) / Technical / Calculate Insulation Thickness for exact thermal conductivity values and instructions for entering ESLIN™ thermal values into the NAIMA 3E-Plus software, the industry standard for calculating insulation thicknesses, heat losses & surface temperatures.

\*When ordering material to comply with any ASTM, government, or other specification, a statement of that fact must appear on the purchase order. These specifications require specific lot testing and prohibit the certification of the lot after shipment has been made. There will be additional charges associated with compliance testing.



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