

DELTA[®]-12

MINERAL WOOL BOARD



Efficient - Versatile - Lightweight

DELTA[®]-12 Board, manufactured from felted mineral wool bonded together with a high temperature binder, is a highly efficient, rigid insulation recommended for commercial and industrial applications from -20°F (-29°C) to 1200°F* (649°C*). There is a wide range of applications for **DELTA[®]-12 Mineral Wool Board** including ideal use for tops of ducts, tanks, precipitators, and similar applications where compressive strength is important. Generally, attachment is by means of weld pins and clips, strapping, or wire mesh, and then finished with either metal, plastic lagging, or reinforced mastic.

Physical Properties

All values in () are metric conversions.

Density: Nom. 12 lb./c.f. (Nom. 192 kg./m³)

Thermal Conductivity: °F.(°C) mean temp.= Btu in./h ft²

°F (W/m K) [per ASTM C 177 with C 1045 calculations]

75°F. (24°C) mean temp.= 0.24 (0.035)

200°F. (93°C) mean temp.= 0.30 (0.044)

300°F. (149°C) mean temp.= 0.35 (0.051)

400°F. (204°C) mean temp.= 0.40 (0.058)

500°F. (316°C) mean temp.= 0.45 (0.066)

600°F. (316°C) mean temp.= 0.50 (0.073)

Service Temperature [ASTM C 411] - up to **1200°F**

***(649°C*)**

Corrosion [Steel, Aluminum, Copper, ASTM C 665]

..... None

Moisture Sorption [Vapor, ASTM C 1104]-Less than 1%

Water *wicking* resistant* and Non-hygroscopic.* Does not promote growth of fungi or bacteria.

"*Incombustible*" [ASTM E 136 Test Method]

Surface Burning Characteristics: [ASTM E 84 Test Method]

Flame Spread Index = 5

Smoke Developed Index = 0

Properly installed protective vapor retarders must be used for below ambient applications to prevent movement of water vapor through or around the insulation towards the colder surface.

Forms Available

Thickness: 1 in.(25mm), 1½ in.(38mm), and 2 in.(51mm)
Custom dimensions available.

Standard Width: 24 in. (61cm) Standard Length: 48 in. (122cm)

Packaged: *Shrink-pack* polyethylene, approx. 96 board feet/pkg.

Suggested Thickness: ≤ 140°F. Outer Surface Temp.

3EPLUS[®] v2.12 computer model calculating for insulation thickness at various process temperatures on a vertical flat surface. Input data:

Ambient air = 75°F, No wind, Emittance[oxidized aluminum] = 0.1

Temp.	Thickness	Temp.	Thickness
250°F	1.0 in.	650°F.	4.0 in.
350°F	1.5 in.	750°F.	5.0 in.
450°F	2.5 in.	950°F.	8.0 in.
550°F	3.0 in.	1150°F.	11.5 in.

Specifications

ASTM C 612-93

U.S. Federal Specification HH-I-558B and C

Stainless Steel Stress Corrosion Specification:

Special provisions apply concerning lot testing, contact manufacture...

ASTM C 795, per test methods C 871, & C 692

MIL-I-24244 B and C [ships]

Nuclear Regulatory Commission, Reg. Guide #1.36

*Consult manufacturer for limitations under elevated temperature conditions.