

Kooltherm®

K12 Framing Board

Submittal

Job Reference

Job Name

Job Location

Submitted By

Submitted By

Date

Phone

Date

Phone

Introduction

Kingspan Kooltherm® K12 Framing Board is a premium performance insulation, with a fiber-free rigid thermoset phenolic insulation core faced on both sides with a low emissivity composite foil facing which is used in wood or steel frame walls.

- Highest R-value per inch*
- ASTM E84 Class A rating (≤ 25 flame spread, ≤ 450 smoke developed)
- Extensive NFPA 285 compliant wall systems**

The Facings

Kingspan Kooltherm® K12 Framing Board is faced on both sides with a low emissivity composite foil, adhesively bonded to the insulation core during manufacture. This reflective, low emissivity surface improves the thermal resistance of any unventilated cavity adjacent to the board.

Standard Dimensions

K12 Framing Board is available in the following standard size(s):

Nominal Dimension	Availability	
	(in)	(mm)
Width	47.25	1200
Length	95.98	2438

The Core

The core of Kingspan Kooltherm® K12 Framing Board is a premium performance rigid thermoset fiber-free phenolic insulant manufactured with a blowing agent that has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).



*of commonly available insulations

**see fire performance section for details

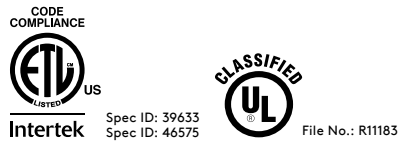
Thermal Resistance

The R-values detailed below are quoted in accordance with ASTM C518 (Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus). Conditioned for 90 days at 140° F dry heat prior to testing.

Insulant Thickness		Thermal Resistance
(in)	(mm)	(R-value)*
1.18	30	8.0
1.57	40	10.6
1.97	50	13.3
2.36	60	16.0
2.76	70	18.7
2.95	75	20.0
3.15	80	21.4
3.54	90	24.0
3.94	100	26.7

Refer to Kingspan Insulation for current stock and non-stock sizes.

* Listed R-values per Intertek Code Compliance Research Report CCRR-1066. R-values are expressed in ft²·h·F/Btu.



Fire Performance

For information regarding ASTM E84 rating, please review Intertek flame spread listing on the Intertek Directory of Building Products website.

Flame Spread	Smoke Developed
≤ 25	≤ 450

Kingspan Kooltherm® K12 can be used in Type V construction without limitation. For Types I, II, III, or IV construction, K12 can be used in assemblies that have passed NFPA 285, or assemblies that have received an engineering judgement (EJ) as being equivalent to an assembly that has passed NFPA 285 per approval by the authority having jurisdiction (AHJ). For guidance on compliant assemblies, please refer to the Kingspan NFPA 285 Technical Evaluation Report, which can be found at www.kingspaninsulation.us. For further details, please contact Kingspan Insulation Technical Services.

Code Report

Intertek CCRR-1066

To ensure you are viewing the most recent and accurate product information, please visit this link <http://kingspan.com/us/en/products/rigid-insulation/insulation-board/kooltherm-k12/>

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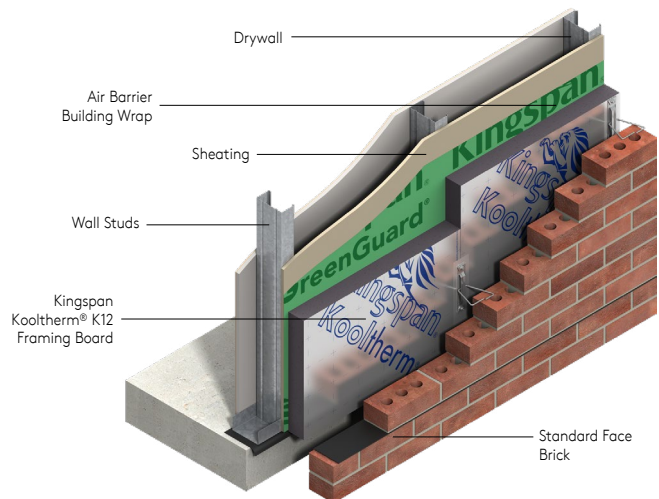
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Product Data		
Property	Test Method	Result
General		
Compressive Strength, Min. (psi)	ASTM D1621	16
Water Absorption, Max (% by volume)	ASTM C209	1.15
Density, Min. (lb/ft ³)	ASTM D1622	2.0
Closed Cell Content (% of cells closed)	ASTM D6226	94.67
Air Permeance (L/(s·m ²)@ 75 Pa) (cfm/ft ² @1.57 psf)	ASTM E2178	0.002 0.000
Water Vapor Permeance (perm) ¹	ASTM E96	0.51

¹ Permeance shown is for 25mm thick board. Permeance typically decreases as board thickness increases.

Standards and Approvals

Kingspan Kooltherm® K12 Framing Board is manufactured to the highest standards under a management system certified to ISO 9001: 2015 (Quality Management Systems. Requirements), ISO 14001: 2015 (Environmental Management Systems. Requirements), ISO 45001: 2018 (Occupational Health and Safety Management Systems. Requirements) and ISO 50001: 2018 (Energy Management Systems. Requirements).



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