



**FOIL LAMINATE INDUSTRIES SDN BHD**  
(343587-X)



# AIR – TAC BUBBLE FOIL BB238FR-10

## Key Benefits



Sound Insulation



Thermal Efficiency



Fire Retardant



Easy Installation



Radiant Heat Reflectivity



Energy Cost Saving



Self Support



Vapor Barrier



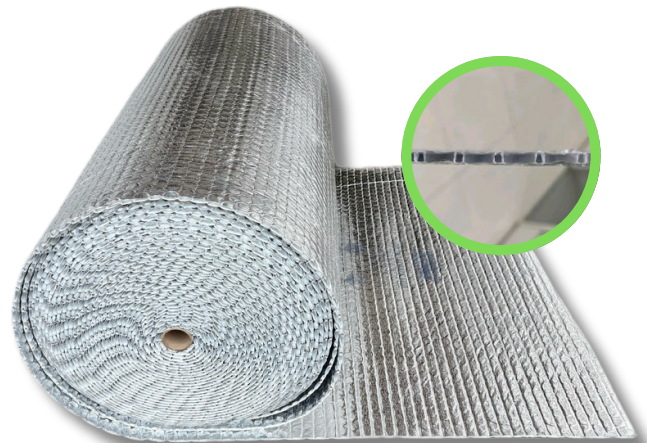
Tear Resistant

## High-Performance Bubble Fire-Retardant Reflective Insulation for Roofing Systems

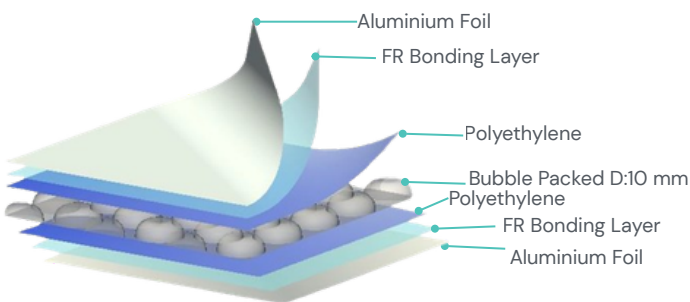
- Fire retardant double-sided small air bubble aluminium foil.
- BB238FR-10 is a (7) seven-layer, fire retardant both side reflective insulation made of pure aluminium foil, and high density polyethylene air bubbles.
- It works as both thermal insulation and a vapor barrier without needing wire mesh or additional insulation.
- This material is durable, tear resistant, and hygienic. It is fiber-free, non-toxic, and resistant to fungus, insects, rodents, and other pests.
- ECO-LABEL and MYHijau certified.

**Standard Size:** 1.22m (Width) x 40m (Length)

*\* Custom length is available. Contact us for more details.*



### Cross Section



### Application

- It widely used under roof for food industry, farmhouse, agricultural storage and poultry building.
- Highly recommended for building or construction which required superior radiant heat insulation, dominant tensile strength for heavy duty and noise reduction for roof systems.
- No wire netting is required for support.
- As a reflective insulation under all types of roof coverings in commercial, industrial and residential building.





## BQ Specification

Approved MS2095 and CIDB BB238FR-10 (200±30 g/m<sup>2</sup>, 3.0–4.0 mm total thickness) fibre-free, heavy duty performance fire retardant with high reflective double-sided pure aluminium foil, single layer of 10mm diameter small air bubble and SIRIM Eco-Label (30%–40% energy reduction).

## Product Technical Data

PROPERTY	TEST METHOD	RESULT/SPECIFICATION	GRADE/REMARK
Reflectivity/ Emissivity	ASTM C 1371	96% / 4%	
Tensile Strength	(MD) AS/NZS 1301.448s (CD) AS/NZS 1301.448s	≥ 3.0 kN/m ≥ 3.0 kN/m	Heavy Heavy
Edge Tear Resistance	(MD) TAPPI T470 (CD) TAPPI T470	≥ 60.0 ± 10.0 N ≥ 64.0 ± 50.0 N	Heavy Heavy
Vapor Barrier (WVTR)	ASTM E96	≥ 0.00222 µg/N.s (≥ 450MN.s/g)	High
Resistance to Dry Delamination	AS/NZS 4201.1	No Delamination	Pass
Resistance to Wet Delamination	AS/NZS 4201.2	No Delamination	Pass
Shrinkage	AS/NZS 4201.3	≤ 0.5 %	Pass
Grammage	In House	200 ± 30 g/m <sup>2</sup>	
Thickness	In House	3.0 – 4.0 mm	
Sound Reduction	In House	11 – 12 %	Test at 87db
Sound Transmission Loss	ASTM E90	5 dB	STC

\* Technical information provided represents average result of tests conducted under standard procedure and is subject to variation.

\* No guarantee can be made regarding specific applications or patent rights.

## Fire Property

### FIRE TESTS ON BUILDING MATERIALS AND STRUCTURES

CHARACTERISTIC	TEST METHOD	SPECIFICATION
Fire Propagation for Products, Sub- Index, $i_1$ Overall Performance Index	BS 476 : Part 6	< 6 < 12
Surface Spread of Flame of Products	BS 476 : Part 7	CLASS 1
Classification of Fire Rating	-	CLASS 0

## Thermal Property

BB238FR-10 is tested in accordance to ISO 8301

- Thermal resistance, R-value : 2.603 m<sup>2</sup>K/W

\*The above value are based on MS2095 testing requirements, which include a total air gap of 100 mm.

## Handling and Storage

Store this product under cover and dry conditions.



Foil Laminate Industries Sdn. Bhd. (343587-K)

Factory/HQ: 1139, Lorong Perindustrian Bukit Minyak 11, Taman Perindustrian Bukit Minyak, 14100 Simpang Ampat, Penang, Malaysia

Tel: +604-5011 999 Fax: +604-5011 991

PJ Office: (1<sup>st</sup> Floor), Jalan PJS 9/5, Bandar Sunway, 46150 Petaling Jaya, Selangor Malaysia

Tel: +603-5621 4868 Fax: +603-5621 4878