



# Premium One CP1

Thermal reflective insulation made of one external High Resistance pure (99.4%) aluminium foil layer covering one side of a single core layer of flame stop non dripping polyethylene bubble film and on the other side one external layer of flame stop polyethylene closing sheet. Reflects 95% of radiant heat.



Roll size : 1.2m (W) x 60m (L) x 3.8mm (T)  
 Coverage : 72m<sup>2</sup>  
 Roll Weight : ± 15 kg

## Technical Data

| PROPERTY  | UNITS                   | DIR | COOLMAX™ PREMIUM CP1   |
|---|-------------------------|-----|--|
| Emissivity (ASTM C 1371, E-408)   | %                       |     | 5  |
| Reflectivity (ASTM 1371, E-408)   | %                       |     | 95   |
| Heat Resistance (AS/NZS 4859.1)   | m <sup>2</sup> x °C / w |     | 1.85 (typical residential tiled roof)<br>1.50 (typical commercial roof without ceiling)<br>2.50 (typical commercial roof with ceiling) |
| Noise Reduction Coefficient (ASTM E-384)  | %                       |     | 35   |
| Tensile Strength @ Peak (ASTM C-1336)   | g/cm-width              | MD  | 2500   |
|   |                         | TD  | 2400   |
| Elongation @ Peak (ASTM D-882)  | %                       | MD  | 18.7   |
|   |                         | TD  | 12.0   |
| Tear Strength (ASTM D-1004)   | N                       | MD  | 13.0   |
|   |                         | TD  | 15.0   |
| Operation Temperature   | -49°C to +88°C          | MD  | -  |
|   |                         | TD  | -  |
| Puncture Resistance (TAPPI T803)  |                         |     | -  |
| Classification Of Reaction To Fire •  | joule                   |     | (IS 755) Class II.3.2  |
| Surface Burning Characteristic •  |                         |     | N/A  |
| Flame Spread Classification And Smoke Density Developed According to: UL 723, NFPA No. 255, UBC No. 8-1 |                         |     | N/A  |
| SNPE Non Flaming Dripping Test for PE Bubbles   | SNPE non                |     | PASS   |
| Linear Dimensional Changes (ASTM C 1136-92) at 110°C  | °C                      |     | < 0.2  |
| Linear Shrinkage (24 hours in water)  |                         |     | 0%   |
| Water Vapour Transmission (ASTM E-96)   | g/f <sup>2</sup> .hr    |     | 0.018 (method A)   |
| Dry Delaminating (AS4201.1 under 4859.1)  |                         |     | Pass   |
| Wet Delaminating (AS4201.1 under 4859.1)  |                         |     | Pass   |
| Fungal Resistance Test (ASTM C 1338)  |                         |     | No fungal growth   |
| Corrosion Resistance (internal test)  | conc.HCl                |     | High resistance  |
| Surface Corrosion Test (AS4201.1 under 4859.1)  |                         |     | Pass   |
| Yield (nominal)   | g/m <sup>2</sup>        |     | ~ 230  |

Terreal CoolMax™ Premium are designed and manufactured under control of a Quality Management System, which meets the requirements of ISO 9001:2000 as certified by :



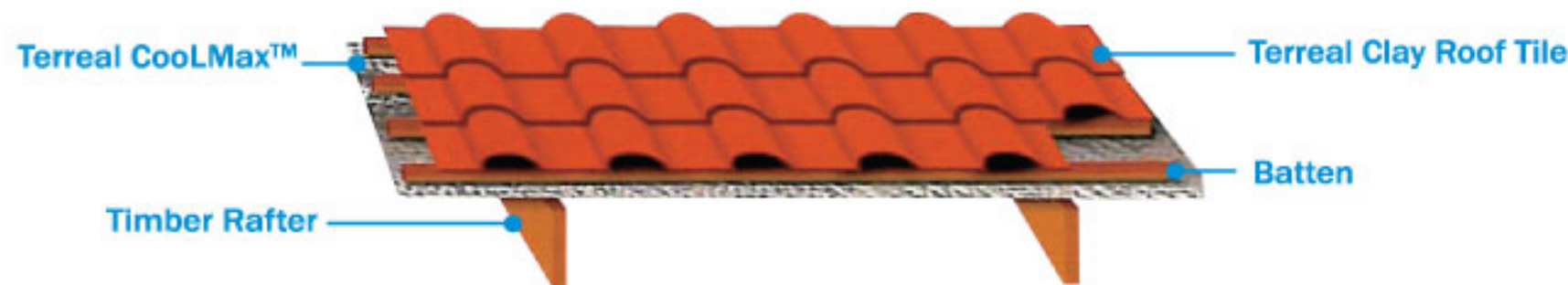
## Key Benefits

- Acoustic** up to 35% NRC
- Advanced Thermal Performance** reflecting 95% of radiation heat
- 3 in 1** provide a protective insulation barrier, radiant barrier and waterproofing membrane
- No Health Hazard Fiber Free** anti bacteria and anti fungal, non-asthmatic and poses no health and safety risks
- Easy Installation** no wire mesh no additional protective film fast & easy
- Energy Saving, Cost Saving**
- Fire Retardant** achieved Class 1 Classification & all International Standards



\* All products are supplied with high resistance (H.R.) treatment against corrosion as standard.

# Installation Guide



**Step 1**  
Measure the width of the roof and by using blade cut the length accordingly.



**Step 2**  
Starting from trusses edge, lay CoolMax™ across the purlins.



**Step 3**  
Using self-tapping screw for light weight trusses or stapler for timber trusses to secure CoolMax™.



**Step 4**  
Make sure overlapping shall be at least 50mm and stick with PP all weather tape which is heavy duty self extinguished tape.



**Step 5**  
Batten can be installed on top of CoolMax™ following the roof profile spacing.



**Step 6**  
Install roof tiles according to manufacturer's recommendations.



**Step 7**  
View from roof underneath.

## Certificates & Approvals

| CERTIFICATION                                 | COUNTRY       | STANDARD                                | TEST RESULT   | CERTIFICATION BODY   |
|---|---------------|---|---|--|
| Quality Management System                     | International | ISO 9001:2000                           | Comply  | <br>Certificate No. 163183    |
| Product Safety in Food Packaging Applications | International | HACCP                                   | Comply  |  |
|   | U.K.          | BRC / IOP                               | Comply  |  |
| FIRE SAFETY                                   | Japan         | ISO 5660                                | Non-combustible   | General Building Research Corp. of JAPAN Officially approved By the Ministry of Land, Transport and infrastructure |
|   | U.K.          | BS 476:Part 7                           | Class 1   | Warrington Fire Research Centre Ltd. - U.K.  |
|   | Australia     | AS 1530 Part 3                          | Pass all categories                                       | APL, Applied Physics Laboratories, New Zealand   |
| ASBESTOS FREE                                 | International | X-ray diffraction method<br>RTM-2 (AIA) | No asbestos fibres identified<br>No asbestos fibres found | Ministry of National Infrastructures, Geological Institute<br>"Millennium Hygiene" - Enviromental measurement      |
| THERMAL RESISTANCE MEASUREMENT                | United States | ASTM C 236                              | 1.567 m <sup>2</sup> °C / W                               | Celotex Corporation Testing Services, U.S.A.   |
| THERMAL CONDUCTIVITY                          |               |   |   |  |
| Emmissivity                                   | Singapore     | ASTM C 1371                             | 0.04  | Singapore Productivity & Standards Board (PSB Corporation)   |
| Reflectivity                                  |               |   | 96%   |  |
| Emmissivity                                   | Australia     | ASTM E 408                              | 0.03  | The University of Western Australia  |
| Reflectivity                                  |               |   | 97%   |  |
| MOISTURE BARRIER                              | United States | ASTM E 96                               | 0.018 perm  | SGS U.S. Testing Company Inc.  |
| MOLD RESISTANCE                               | United States | ASTM C 1338                             | No fungal growth  |  |
| THERMAL STABILITY TESTS                       | United States | ASTM D 1204                             | < 0.25% change  | Technion Research & Development Foundation Ltd.  |
|   |               | ASTM C 1263                             | No Cracks / No delamination                               |  |
| TECHNICAL APPROVALS                           | Poland        | AT-15-5167/2002                         | Approved  | Instytut Techniki Budowlanej   |
|   | Spain         | DIT                                     | Approved  | Instituto Eduardo Torroja de Ciencias de la Construcion  |
|   | Australia     | AS/NZS 4859.1:2002                      | Approved  | JMF, Australia   |
|   | United States | AS/NZS 4859.1:2002                      | Approved  | R&D Services, U.S.A.   |

DISCLAIMER: The Information contained in this Technical Data Sheet is the result of extensive laboratory testing performed on our products during standard production. The values given here are typical average values and are believed to be correct to the best of our knowledge, but user should not rely on them absolutely and must confirm their validity and suitability in each particular case. Terreal Malaysia Sdn Bhd makes no guarantee of results and assumes no obligation or liability in connection with this advice.

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