

CERTIFICATE OF CONFORMITY

This product Certificate is issued under Section 269 of the Building Act 2004 for:

De Boer Duo Roof Membrane Systems



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Product Description

De Boer Duo Roof Membrane Systems are torch-on bitumen modified waterproofing membranes for roofs. Systems are either single layer or multi layer. Multi-Layer applications are made of a cap sheet and a base sheet while single layer applications are made of a cap sheet alone. Apart from DuO HT 4 Slates/F C180 Aero and DuO HT 4 Slates/F C180 Mecano which use are limited to single layer applications, all cap sheets can be used as part of a multi-layer system. Available cap sheets are described in table 1 and available base sheets are described in table 2

Table 1

Name	Nominal Dimensions	Top finish	Bottom finish	Reinforcement
DuO HT 4 Slates/F C180 Aero	4mm thick 1m wide 8m long	TPO -modified bitumen with coloured slate granule upper finish.	SBS-modified bitumen with a polypropylene fleece with stripes and a sacrificial film	Composite reinforcement of polyester and glass scrim of 180 g/m ²
DuO HT 4 Slates/F C180		Root-resistant TPO-modified bitumen with coloured slate granule upper finish.	SBS-modified bitumen with sacrificial film	
DuO HT 4 Slates/F C180 Mecano				
DuO HT 4 Slates/ F C180 Firecare				
DuO HT 4 Slates/ F C180 Landscape				
DuO 4 HT Slates/F C180 No Flame	TPO -modified bitumen with coloured slate granule upper finish.	SBS-modified bitumen with a polypropylene fleece		

Table 2

Name	Nominal Dimensions	Top finish	Bottom finish	Reinforcement
DeboPlast 2.5 mm T/F C175	2.5mm thick 1m wide 10m long	APP-modified bitumen with talcum & sand	APP-modified bitumen with sacrificial film	Composite reinforcement of polyester and glass scrim of 175 g/m ²
DeboFlex 2.5 mm T/F C175		SBS-modified bitumen with talcum & sand	SBS-modified bitumen with sacrificial film	
DeboTack 2.5 mm T/F C175		Self-adhesive bitumen with talcum & sand	Self-adhesive bitumen with sacrificial film	

CodeMark Certification Body		03/02/2017		03/02/2020	GM-CM30060-RevA
Global-Mark Pty Ltd, Suite 4.07, 32 Delhi Road, North Ryde NSW 2113, Australia Tel: +61 (0)2 9886 0222 www.Global-Mark.com.au	Herve Michoux Managing Director	Date of issue	Last update	Date of next re-certification	Certificate Number

The purpose of construction site audits is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions. In issuing this certificate, Global-Mark has relied on the independent expert and/or laboratory advise or reports. This certificate is issued by Global-Mark Pty Limited, an independent certification body accredited by the product certification accreditation body (JAS-ANZ) appointed by the Chief Executive of the Ministry of Business Innovation and Employment under the Building Act 2004. The Ministry of Business Innovation and Employment does not in any way warrant, guarantee, or represent that the building method or product the subject of this certificate conforms with the New Zealand Building Code, nor accept any liability arising out of the use of the building method or product. The Ministry of Business Innovation and Employment disclaims, to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages, and costs arising as a result of the use of the building method(s) or product(s) referred to in this certificate. This Certificate may only be reproduced in its entirety.

It is advised to check that this Certificate of Conformity is currently valid and not withdrawn, suspended or superseded by a later issue by referring to the Ministry of Business Innovation and Employment website, <http://www.mbie.govt.nz/>
New Zealand Building Code (NZBC) references the Building Code in force at the time of issuing the product certificate.

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The systems also include the following ancillary components supplied by Equus Industries Ltd:
DuO Primer (solvent-based bitumen Primer) and,
The componentry listed in Equus accessory Catalogue revision 2.

Product purpose and use

- De Boer DuO Roof Membrane Systems have been assessed as roof waterproofing membranes on buildings within the following scope:
 - the scope limitations of NZS 3604:2011 and NZBC Acceptable Solution E2/AS1, Paragraph 1.1; or,
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area when subject to specific structural design; and,
 - situated in NZS 3604:2011 Wind Zones, up to, and including Extra High; and,
 - with substrates of plywood or suspended concrete slab; and,
 - with a minimum fall for roofs of 1:30 (2 degrees).
- De Boer DuO Roof Membrane Systems have also been assessed for use as roof waterproofing membranes on buildings within the following scope:
 - subject to specific structural and weathertightness design situated in wind pressures up to a maximum design differential ultimate limit state (ULS) of 4 kPa; and,
 - with substrates of plywood or suspended concrete slab.
 - with a minimum fall for roofs of 1:30 (2 degrees).

Certificate holder

Equus Industries Ltd, Sheffield Street, Riverlands, Blenheim 7201, New Zealand.
Ph: +64 3 578 0214, Fax: +64 3 578 0919, Email: admin@equus.co.nz,
Web: www.equus.co.nz

Compliance with the New Zealand Building Code (NZBC):

De Boer DuO Roof Membrane Systems if designed, used, installed and maintained in accordance with the scope of this Certificate, will meet the following provisions of the NZBC:

Clause B2 DURABILITY: Performance B2.3.1 (b) and B2.3.2 (a), 15 years. De Boer DuO Roof Membrane Systems meet this requirement.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.1, E2.3.2 and E2.3.7 (b) and (c). De Boer DuO Roof Membrane Systems meet these requirements.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. De Boer DuO Roof Membrane Systems meet this requirement and will not present a health hazard to people.

Water Supplies: Water is not contaminated by De Boer DuO Roof Membrane Systems which comply with AS/NZS 4020:2005

Subject to the following conditions and limitations:

- Maintaining the validity of and compliance with the BRANZ Appraisal No. 685 (2016) De Boer DuO Roof Membrane Systems.
- Subject to regular inspection and maintenance in accordance with the set of documents below collectively referenced as Applicable Technical Documentation.
 - BRANZ Appraisal No. 685 (2016) De Boer DuO Roof Membrane Systems and
 - the Code of Practice for Torch-on Membrane Systems for Roofs and Decks, 1st Edition, October 2008 and,
 - Equus De Boer DuO Roof Membranes Systems Building Product Technical Manual Ref. 012/2016 and,
 - Equus Standard specification for the application of De Boer Duo HT 4 Slates/F C180 Two-Layer waterproof roofing membrane to concrete surfaces (P3401 Version 2013-1 Sept 2013) and
 - Equus Standard specification for the application of De Boer Duo HT 4 Slates/F C180 Two-Layer waterproof roofing membrane to plywood surfaces (P3402 Rev February 2016) and
 - De Boer - Storage and installation of self-adhesive waterproofing membranes (July 2016) and
 - De Boer - Installation information DuO HT 4 Slates/F C180 Aero (Version 1 Dated 31/01/2017) and
 - De Boer - Modified Bituminous Sheet Waterproofing – Single Layer Mechanically fastened Roof Waterproofing System (rev 2016/08)
- De Boer DuO Roof Membrane Systems can only be used with the ancillary components provided by Equus Industries Ltd listed in the product description section of this certificate. Where these components are substituted with alternative products, these applications fall outside the scope of this Certification,
- For existing buildings, the suitability of the roof needs to be confirmed. This assessment is outside the scope of this

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certification.

- Certificate holder will notify Global-Mark Pty Ltd in accordance with Regulation 15 of the Building (Product Certification) Regulations 2008

Design Conditions:

- Product specification and incorporation of a De Boer DuO Roof Membrane System into the building design shall be carried out
 - by a designer / architect / engineer or a building professional who:
 - Is qualified to design the buildings covered under the 'Scope' of use of this product.
 - Has ready access to the technical specifications including installation details and standards referenced in the Applicable Technical Documentation.
 - in compliance with the requirement of the Applicable Technical Documentation.
- The design and construction of the substrate and movement and control joints is specific to each building, and therefore is the responsibility of the building designer and building contractor and is outside the scope of this Certification.
- When used in structural and weather tightness design situated in wind pressures up to a maximum design differential ultimate limit state (ULS) of 4 kPa; on substrates of plywood or suspended concrete slab; the weather tightness design of junctions for each specific structure is the responsibility of the building designer and is outside the scope of this Certification.
- Use of the systems with Paving Slabs or topping screed on substrate other than concrete is outside the scope of certification.
- When Mechanical fasteners are use, the number, spacing and location of the fasteners are to be provided by Equus Industries Ltd. This requirement is calculated following NZS1170.2:2011 including amendments 1,2,3 and 4 on a case by case basis and must be adhered to.
- The use of DuO HT 4 Slates/F C180 Aero and DuO HT 4 Slates/F C180 Mecano is limited to applications on concrete substrate.
- De Boer DuO Roof Membrane System is impermeable; therefore a means of dissipating construction moisture must be provided in the building design and construction to meet code compliance with NZBC Clause E2.3.6.
- Though De Boer DuO Roof Membrane System has been shown to comply with AS/NZS 4020:2005, it must be noted that all water collected off roof surfaces made from any material is considered to be non-potable due to possible contamination from other sources. Water collection in this way can only be considered potable if it has been passed through a suitable purification system. Purification systems such as this have not been assessed and are outside the scope of this Certificate.

Product Installation Conditions:

- Installation shall be carried out by an Equus Industries Ltd trained and licensed installer. Installation shall be undertaken in accordance with all relevant technical information related to the selected installation method, including information contained within the Applicable Technical Documentation.
- Long term properties of the material may be affected by contact with petroleum-based products such as oils, greases and solvents.

End of the record