



PRODUCT CERTIFICATE

SikaWrap Hex Structural Strengthening System



CERTIFICATE NO: CM70067 Rev 1

Date of issue: 7 October 2021

KEY INFORMATION

1	CERTIFICATE HOLDER DETAILS
Sika (NZ) Limited 85-91 Patiki Road Avondale, Auckland 1026 New Zealand	
Enter New Zealand Email Address Ph: 0800 745 269 www.nzl.sika.com	



2	PRODUCT CERTIFICATION BODY
Bureau Veritas Australia Pty Ltd 3/435 Williamstown Road Port Melbourne VIC 3207 Australia	
Ph: 1800 855 190 www.bureauveritas.com.au	
Bureau Veritas Australia Pty Ltd	
The complaints process for this certificate can be found here: www.bureauveritas.com.au/your-feedback	

3	SUMMARY OF DESCRIPTION OF BUILDING METHOD OR PRODUCT
The SikaWrap Hex Structural Strengthening System is a textile based structural strengthening system available in two options; <ul style="list-style-type: none">• SikaWrap Hex-100G (Glass fiber) plus Sikadur Hex-300, plus the option of adding Sikacrete-213 F (for fire protection); OR• SikaWrap Hex-103C (Carbon Fiber) plus Sikadur Hex-300 plus the option of adding Sikacrete-213 F (for fire protection). <p><i>Continuation of description can be found in item 9. Supporting Information about Description of Building Product or Method.</i> <i>Matters that should be taken into account in the use or application of the building method or product can be found in item 6. Conditions and Limitations of Use.</i></p>	
4	SUMMARY OF INTENDED USE OF BUILDING METHOD OR PRODUCT
The SikaWrap Hex Structural Strengthening System is used for the strengthening of reinforced concrete and reinforced and unreinforced masonry elements of existing buildings. Sikacrete-213 F is used where additional fire protection, to a strengthened structural element, is required. <p><i>Continuation of intended use can be found in item 10. Supporting Information about Intended use of Building Product or Method.</i></p>	
5	BUILDING CODE PROVISIONS
The performance clauses of the New Zealand Building Code that are relevant to the intended use and with which the building method or product complies or contributes to (where used as part of a system). B1 Structure: B1.3.1, B1.3.2, B1.3.3(a, b, f), B1.3.4 B2 Durability: B2.3.1(a) C6 Structural Stability: C6.2, C6.3, C6.4 F2 Hazardous Building Materials: F2.3.1 <p><i>How the building method or product complies or contributes can be found in item 12. Basis for Certification. Any qualifications on the extent of that compliance can be found in item 6. Conditions and limitations of use.</i></p>	



This certificate is issued by an independent certification body accredited by JAS-ANZ, the product certification accreditation body appointed by the Chief Executive of the Ministry of Business, Innovation and Employment under the Building Act 2004. The Ministry does not in any way warrant, guarantee, or represent that the building method or product that is 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 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 is currently valid and not withdrawn or suspended by referring to the Register of Product Certificates on the Building Performance website <http://www.building.govt.nz>.

CERTIFICATE V1.3

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6 CONDITIONS AND LIMITATIONS OF USE

1. Design of the strengthening works i.e. the specific Sika product items and their location in the structure, shall only be undertaken by a Chartered Professional Engineer (Structural) and shall only be installed by sole applicator BBR Contech.
2. The Fiber Reinforced Polymer (FRP) structural strengthening design for reinforced concrete structures shall be undertaken in accordance with ACI 440.2R-17, NZS 3101:2006 and AS/NZS 1170.0:2002.
3. The Fiber Reinforced Polymer (FRP) structural strengthening design for masonry structures shall be undertaken in accordance with ACI 440.7R-10, NZS4320:2004 and AS/NZS 1170.0:2002.
4. Where the SikaWrap Hex Structural Strengthening System is used in a part of a building to which NZ Building Code clause C3.4 (a) obligations apply, the system shall be covered by a material that meets the C3.4 (a) requirement for that part of the building.
5. Where additional fire protection is required, Sikacrete-213 F shall be used.

NOTE: Together, items 3, 4, 5 and 6 define scope of use.

7 HEALTH AND SAFETY INFORMATION

The compliance with any manufacturer's installation instructions, maintenance, OH & S statements, MSDS's and other Health and Safety declarations will provide the necessary Health and Safety Information pertaining to the product.

8 SIGNATURES



Sam Guindi
Product Certification Manager

For and on behalf of
Bureau Veritas Australia Pty Ltd



Phil Shieffelbein
Business Manager Construction

For and on behalf of
Sika (NZ) Limited

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SCHEDULE: INFORMATION THAT SUPPORTS KEY INFORMATION

9	SUPPORTING INFORMATION ABOUT DESCRIPTION
N/A	
10	SUPPORTING INFORMATION ABOUT INTENDED USE
N/A	
11	SUPPORTING INFORMATION ABOUT CONDITIONS AND LIMITATIONS OF USE
N/A	

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12 BASIS FOR CERTIFICATION

1. B1 Structure - By testing and comparison with Verification Method B1/VM1
2. B2 Durability - By testing and comparison with Acceptable Solution B2/AS1
3. C6 Structural stability - By testing and comparison with Verification Method C/VM2
4. F2 Hazardous building materials - By comparison with the performance requirements of Building Code Clause F2.3.1

13 SUPPORTING DOCUMENTATION FOR CERTIFICATION

5. Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B1 Structure 1st Edition (Amendment 19), 28 November 2019
1. Acceptable Solutions and Verification Methods For New Zealand Building Code Clause B2 Durability (Amendment 12), 28 November 2019
2. C/VM2 Verification Method: Framework for Fire Safety Design For New Zealand Building Code Clauses C1-C6 Protection from Fire (Amendment 6), 5 November 2020
3. Acceptable Solutions and Verification Methods for New Zealand Building Code Clause F2 Hazardous building materials First edition (Amendment 3), 1 January 2017
4. ICC-ES Evaluation Report ESR-3288, 1 October 2013
5. AC 125, Acceptance criteria for concrete and reinforced and unreinforced masonry strengthening using fiber-reinforced polymer (frp), composite systems, ICC-ES, June 2012
6. VSH Test report Nr. 20070026.3, 13 December 2007 - Fire resistance testing of concrete slab with fire protection mortar Sikacrete-213F, to ISO 834
7. ISO 834:1999 Fire Resistance tests – Elements of building construction
1. NRC-CNRC Fire Resistance Report B4247.1
2. NRC-CNRC Fire Resistance Report B4247.2
3. Safety Datasheet SikaWrap Hex 100G, 28 August 2013
4. Safety Datasheet SikaWrap Hex 103C, 28 August 2013

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14 CONDITIONS RELATING TO NOTIFICATION

- (a) the certificate holder notifies the product certification body (Bureau Veritas) in writing of any intended change to any of the following particulars:
- (i) the name, address, or contact details of the certificate holder;
 - (ii) any address of a location where a certified product is produced or manufactured;
- (b) the certificate holder notifies the product certification body (Bureau Veritas) in writing of any intended change, modification, or alteration to any of the following:
- (i) the certified building method or product;
 - (ii) the method of its production or manufacture;
 - (iii) the product quality plan prepared in respect of the certified building method or product;
 - (iv) the application or installation instructions for the certified building method or product;
 - (v) any documentation relating to the use and maintenance of the certified building method or product;
- (c) if the certificate holder has any reason to suspect that the certified building method or product does not comply with the Building Code, the certificate holder notifies the product certification body (Bureau Veritas) in writing of the reason for that suspicion:
- (d) if the certificate holder or the product certification body (Bureau Veritas) finds that a certified building method or product that has been released on the market does not comply with the Building Code, the certificate holder discloses that fact in disclosure statements published in a form that is acceptable to the product certification body and to the chief executive:
- (e) if the certificate is suspended or revoked, the certificate holder—
- (i) notifies all customers to whom the building method or product is regularly supplied; and
 - (ii) immediately ceases using the certificate, the mark of conformity, and any reference to the number of the certificate.