

Complies with E2 as an Alternative Solution. BRANZ Appraised - Certificate No. 276



BRANZ Appraised
Appraisal No.276 [2012]

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Viking CertainTeed Asphalt Shingles

Technical Statement

Product Description

CertainTeed asphalt shingles are fibreglass-reinforced with a ceramic mineral-chip surface and a UV resistant coating.

A lightweight roofing system, CertainTeed shingles are mildew, corrosion and high-impact resistant. Ice dam technology and multiple overlapping shingle layers ensure a CertainTeed shingles roof can endure the greatest temperature extremes. CertainTeed shingles comply with the Building Code's (G12) potability clause, so can be used for the collection of drinking water.

The CertainTeed system includes plywood or SuperStrand*, roofing underlay and accessories including CertainTeed's proprietary ridge ventilation system. The durable and light-weight plywood substrate braces the building and negates the need for extra structural requirements for heavy-weight roofing materials. CertainTeed shingles deliver a watertight finish as they are double-lapped and applied on top of a watertight bituminous underlay barrier.

CertainTeed shingles are suitable for residential and commercial pitched roofs and can be used as a reroofing solution.

Other features:

CertainTeed Shingles are backed by product warranties of up to 50 years and for specific projects, are eligible for Viking's Full System Warranty, which covers the product and installation in one document. CertainTeed shingles are BRANZ Appraised (no. 276, 2012).

The CertainTeed range includes four profiles in a range of colours. They have been assessed by the independent Underwriters Laboratory (U.L.), assessing their collective resistance to wind, uplift, UV and impact. See the "Environmental" section of this statement for a list of environmental benefits.

(*SuperStrand is the best option as it has been designed in New Zealand specifically as a substrate for asphalt shingles).

Scope of use

Viking CertainTeed asphalt roofing shingles have been appraised as a roof cladding for buildings within the following scope:

- The scope limitations of NZBC Acceptable Solution E2/AS1 Paragraph 1.1, with regard to floor plan area and building height; and,
- Constructed with timber roof framing and plywood sheathing complying with the NZBC; and,
- Where the roof slope is 9 degrees or greater; and,
- Situated in NZS 3604 Wind Zones up to and including High, or Extra High for the Landmark series, Highland Slate and Independence shingles only.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- Clause B1 Structure: Performance B1.3.1, B1.3.2, B1.3.3, B1.3.4
- Clause B2 Durability: Performance B2.3.1, B2.3.1(b)
- Clause E2 External moisture: Performance E2.3.1, E2.3.2, E2.3.6
- Clause F2 Hazardous building materials: Performance F2.3.1

Supporting Evidence

The product has and can make available, the following additional evidence to support the above statements:

Product Criteria

Design requirements

Product specification and incorporation of Viking CertainTeed asphalt shingles 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 BRANZ Appraisal No. 276 (2012) where the design limitations are outlined for the scope of this PTS.

The CertainTeed system incorporates a range of accessories including vents, underlay and flashings to name a few

Installation requirements

Installation shall be carried out by a Viking trained installer.

- Installation shall be undertaken in accordance with all relevant technical information related to the selected installation method, including information contained within the BRANZ Appraisal No. 276 (2012).

Maintenance requirements

- Little maintenance should be required apart from the removal of lichen, moss and organic growth that may become established and the removal of accumulations of the stone granules in spouting.
- Annual inspections must be made to ensure that all aspects of the roof cladding, including the pre-finished coating, the flashings and any joints remain in a weatherproof condition. Any damaged areas or areas showing signs of deterioration which would allow water ingress must be repaired immediately.
- A water-based chemical treatment recommended by Viking Roofspec as being suitable for use with bitumen-based products must be used for the removal of organic material. Petroleum-based solvents or cleaners must not be used.
- Long term properties of the material may be affected by contact with petroleum-based products such as oils, greases and solvents.

Warranties

The Viking CertainTeed asphalt shingles system is backed by product warranties ranging from 20-50 years (depending on the profile). For specific projects, CertainTeed may be eligible to be covered by Viking's Full System Warranty. This warranty covers the product and installation in one document, for a 20-year period.

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Visit nextgen or masterspec for the online version of our specification.

CAD Details

Please visit our website www.vikingroofspec.co.nz or our masterspec listing for our latest CAD Roofing details.

Company Product Information

Environmental

- By utilising what would otherwise be waste materials, such as slag residue from oil refining, the manufacturing process of CertainTeed shingles reduces land fill waste and greenhouse gas emissions.
- At the end of their serviceable life, shingles can be overlaid (special conditions apply), avoiding the dumping of inorganic materials.
- Lighter colours in the CertainTeed range; many of which carry US CoolStar energy ratings, reduce the energy required to cool a building.
- CertainTeed asphalt shingles meet the AS/NZS 4020 testing of products for use in contact with drinking water standard, so they can be used for BRANZ Appraisal 276 (2012) Viking Roofspec CertainTeed Asphalt Shingles Product Technical Statement: 102460 Disclaimer: The Product Technical Statement (PTS) template is copyright to Construction Information Limited. However the content of this PTS is the responsibility of the product manufacturer/supplier. Refer to the miproducts Terms and Conditions the collection of drinking water.
- CertainTeed Shingles have a potable water certificate so that drinking water can be collected.



BRANZ Appraised

Appraisal No. 276 [2012]

VIKING CERTAINTEED ASPHALT ROOFING SHINGLES



Appraisal No. 276 [2012]

Amended 02 February 2017

BRANZ Appraisals

Technical Assessments of products
for building and construction.



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Product

- 1.1 Viking CertainTeed Asphalt Roofing Shingles are glass-fibre reinforced asphalt shingles surfaced with mineral chips with a ceramic coating. They are available in five shingle types: CT20, Landmark Series [30, 40 and 50], Hatteras, Highland Slate and Independence.
- 1.2 The shingles and flashing accessories form a roofing system when installed over a plywood or Strandsarking substrate and roofing underlay.

Scope

- 2.1 Viking CertainTeed Asphalt Roofing Shingles have been appraised as a roof cladding for buildings within the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1, with regard to floor plan area and building height; and,
 - constructed with timber roof framing and sheathing complying with the NZBC; and,
 - where the roof slope is 9° or greater for plywood and 10° or greater for Strandsarking; and,
 - In the following NZS 3604 Wind Zones:
 - Low for CT20 shingles.
 - up to and including Very High for Landmark Series shingles.
 - up to and including Extra High for Hatteras, Highland Slate and Independence shingles.
- 2.2 The system must be installed in accordance with the Technical Literature by a Viking Roofspec Trained and Approved Installer.

Building Regulations

New Zealand Building Code (NZBC)

- 3.1 In the opinion of BRANZ, Viking CertainTeed Asphalt Roofing Shingles, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC:

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. Viking CertainTeed Asphalt Roofing Shingles meet the requirements for loads arising from self-weight, gravity loads, temperature, snow, wind, impact and creep [i.e. B1.3.3 (a), (b), (c), (g), (h), (j), and (q)]. See Paragraphs 8.1 - 8.9.

Clause B2 DURABILITY: Performance B2.3.1 (b), 15 years. Viking CertainTeed Asphalt Roofing Shingles meet this requirement. See Paragraphs 9.1 and 9.2.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.1 and E2.3.2. Viking CertainTeed Asphalt Roofing Shingles meet these requirements. See Paragraphs 13.1 and 13.2.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Viking CertainTeed Asphalt Roofing Shingles meet this requirement and will not present a health hazard to people.

Technical Specification

- 4.1 Viking CertainTeed Asphalt Roofing Shingles are glass-fibre reinforced asphalt shingles surfaced with ceramic coated mineral chips, available in five profile types. The shingles are combined with plywood or Strandsarking sheathing, a roofing underlay and various flashing accessories to form a roofing system.
- 4.2 System components and accessories supplied by Viking Roofspec are as follows:

Shingles

- Viking CertainTeed Asphalt Roofing Shingles are based on the range of roofing shingles with profiles, sizes and weights as shown in Table 1.
- Single layer shingles are composed of a fibre glass mat base where ceramic-coated mineral granules are embedded in a water-resistant asphalt. The underside of the shingles is coated with fine sand and has intermittent strips of self-bonding, heat-activated adhesive.
- Double layer shingles are manufactured by laminating two single-layer sheets together with asphaltic cement. The top sheet is cut to a profile which gives a random tab pattern when overlaying the lower sheet.

Table 1: Shingle Profiles

Shingle	CT20	Landmark Series*	Hatteras	Highland Slate	Independence
Type	3 tab	Dimensional	4 tab	4 tab	3 tab overlay
Layers	Single	Double	Single	Single	Single
Size [mm]	300 x 1000	300 x 1000	450 x 920	450 x 920	300 x 900
Weather Exposure [mm]	125	135	200	200	125
Approx. mass [kg/m ²]	9.5	11 - 14	11	11.5	14
Available colours	14	17	9	8	10

* Landmark 30, 40 and 50.

Accessories

- **Viking 15W Saturated Felt** - a shingle underlay of asphalt - impregnated organic felt.
- **Viking Peel and Stick Waterproofing Membrane** - a shingle underlay of 1 mm thick, self-adhering, rubberized asphalt sheet membrane reinforced with inorganic glass - fibre mat.
- **Viking Synthetic Roofing Underlay** - a synthetic woven polypropylene roofing underlayment. It is supplied in rolls 1.1 m wide x 87 m long.
- **Shingle starter strips** - pre-cut shingle starters for use at eaves to ensure straight edges.
- **Shadow Ridge shingles** - a three-piece shingle available in 300 x 900 mm and 250 x 1000 mm sizes for use on hips and ridge.
- **Viking Roofing Sealant** - a black mastic type sealant for use as a weather sealant and wind uplift adhesive.
- **Butyl strip flashing** - a 300 mm wide butyl strip for use as apron and step flashings.
- **ShingleVent** - a ridge vent incorporating an external baffle and a weather filter, used to ventilate roof spaces.
- **EcoVent** - a compression resistant ridge vent, used to ventilate roof spaces and provide a breathable weather barrier.
- **Continuous soffit vent** - a PVC vent strip installed in the eave/soffit to allow air flow into the roof space.
- **Shingle nails** - hot-dipped galvanised or stainless steel, 11 or 12 gauge roofing nails with a minimum head diameter of 9 mm. Nail shanks must be long enough to penetrate the shingle and then go 20 mm into the plywood sheathing or completely through the plywood, whichever is less.
- **Viking Skirt Vent** - is a vent for when a roof meets a wall. It is supplied in 1200 mm lengths.

- 4.3 Accessories used with the system which are supplied by the building contractor are as follows:
- **Plywood sheathing** - Minimum 15 mm thick, grade DD or better plywood complying with AS/NZS 2269. Minimum treatment requirements are untreated plywood for ventilated truss roof cavities above 12° and H3 treated plywood for all closed cavity roofs, skillion roofs, and roofs 12° and below. H3 treated plywood must also be used where the plywood edge is unprotected at the eaves. Concealed plywood edges at the eaves do not need to be treated. *[Note: When using plywood sheathing as a structural bracing element, there are additional requirements. Refer to plywood suppliers technical literature.]*
 - **Plywood fixings** - 60 x 2.8 mm flat head hot-dipped galvanised or stainless steel nails for 15 mm and 17 mm plywood. *[Note: Hot-dip galvanising must comply with AS/NZS 4680. Stainless steel must be grade 316.]*
 - **Strandsarking from Laminex New Zealand** - an engineered wood panel sheet material, treated to Hazard Class 3.1. It is available in a nominal thickness of 16.3 mm and panel sizes of 3600 mm x 800 mm. Strandsarking is covered by Appraisal No. 891 [2015].
 - **Strandsarking fixings:**
 - 65 mm x 2.8 mm diameter ring shanked hot dipped galvanised flat head nails; or,
 - 65 mm x 2.8 mm diameter ring shanked stainless steel flat head nails; or,
 - 40 mm x 3.45 mm diameter [6 gauge] stainless steel screws.
- [Note: Hot-dip galvanising must comply with AS/NZS 4680. Stainless steel must be grade 316.]*

Handling and Storage

- 5.1 Viking CertainTeed Asphalt Shingles must be transported and handled with care to avoid damaging the pre-finished surfaces.
- 5.2 Long term storage of shingles and accessories must be under dry, ventilated cover. For short term storage on site, shingles must be stored flat, no more than two pallets high, and off the ground.
- 5.2 Handling and storage of all materials supplied by Viking Roofspec, whether on or off site, is under the control of the Viking Roofspec Approved Installer. Materials must be handled and stored in accordance with the relevant manufacturer's instructions.

Technical Literature

- 6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for Viking CertainTeed Asphalt Roofing Shingles. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

General

- 7.1 Roof framing must comply with NZS 3604, or be to a specific design in accordance with NZS 3603 and AS/NZS 1170.
- 7.2 Timber roof framing and plywood or Strandsarking sheathing must be treated as required by NZBC Acceptable Solution B2/AS1 and NZS 3602 for the building design application.
- 7.3 Roof design must take into account any requirements for areas subject to regular snowfalls as per the requirements of NZBC E2/AS1, Paragraph 1.3.
- 7.4 The roof slope for plywood sheathing is 9° - 60° and for Strandsarking sheathing 10° - 60°.
- 7.5 For roof pitches where the roof slope is between 9° and 18°, the shingle underlay must be Viking Peel & Stick Waterproofing Membrane or two layers of either Viking 15W Saturated Felt or Viking Synthetic Roofing Underlay. For roof pitches greater than 18°, the shingle underlay must be one layer of Viking 15W Saturated Felt or Viking Synthetic Roofing Underlay. See Paragraphs 17.4 and 17.5 for further information.

7.6 Viking CertainTeed Asphalt Roofing Shingles need sufficient exposure to heat in order to fully activate the bonding of the adhesive strips. This bonding minimises the risk of the tabs lifting and tearing-off in windy conditions. In summer, the required exposure period may be as little as one to three days, but in winter the period may be as long as two to four months. Before bonding is complete, damage is possible if unusually high wind gusts occur. For this reason, Viking Roofing Sealant can be used in order to minimise the short-term risk of wind damage. See Paragraphs 16.9 - 16.11 for further information.

Structure

Mass

8.1 The approximate mass of the Viking CertainTeed Asphalt Roofing Shingles including sarking is given in Table 2. A light roof is defined in NZS 3604 as a roof with a roofing material (cladding and any sarking) having a mass not exceeding 20 kg/m². When CertainTeed Shingles are installed over plywood or Strandsarking, the system weighs up to 25 kg/m². This may still be considered a light roof in accordance with NZS 3604.

Table 2: Approximate Roof Covering Masses (kg/m²)

Shingle Type	15 mm plywood	17 mm plywood	Strandsarking
CT20	18	19	21
Landmark Series	19	20	22
Hatteras	19	20	22
Highland Slate	20	21	23
Independence	22	23	25

Snow

8.2 Viking CertainTeed Asphalt Roofing Shingles are suitable for use in areas where buildings are designed for a 1 kPa snow loading. Refer to Viking Roofspec for installation details for snow-prone areas.

Wind Zones

8.3 When fixed in accordance with the manufacturer's instructions and this Appraisal, Viking CertainTeed Asphalt Roofing Shingles are suitable for use in the following NZS 3604 Wind Zones:

- Low for CT20 shingles.
- up to and including Very High for Landmark Series shingles.
- up to and including Extra High for Hatteras, Highland Slate and Independence shingles.

Sheathing

8.4 Rafters or trusses must be at maximum 900 mm centres for 15 and 17 mm thick plywood and Strandsarking. *[Note: Plywood Manufacturer's Technical Literature must be referred to for confirmation of minimum plywood thickness and grades relative to roof pitch and framing centres. Laminex New Zealand Technical Literature must be referred to for Strandsarking].*

8.5 Plywood and Strandsarking must be fixed in accordance with Paragraph 17.2.

8.6 Where LOSP treated plywood is used, the solvents must be allowed to evaporate off for at least one week before installation of the shingle underlay.

8.7 The plywood face grain must be laid at right angles to supports. The sheets must be laid with staggered joints in a brick bond pattern.

8.8 Tongue and groove plywood edges must be butt-jointed with no gaps between the sheet edges. Square plywood edges must have a 2 - 3 mm gap between the sheet edges. A 3 mm gap must be left between each Strandsarking panel.

Durability

Serviceable Life

- 9.1 Viking CertainTeed Asphalt Roofing Shingles are expected to have a serviceable life of at least 15 years provided maintenance is carried out in accordance with this Appraisal.

Weathering

- 9.2 Viking CertainTeed Asphalt Roofing Shingles may lose stone granules over a period of time. On ageing, some surface cracking may appear. These cracks will not affect the weathertightness of the roof covering within 15 years.

Maintenance

- 10.1 Little maintenance should be required apart from the removal of lichen, moss and organic growth that may become established and the removal of accumulations of the stone granules in spouting.
- 10.2 Annual inspections must be made to ensure that all aspects of the roof cladding, including the pre-finished coating, the flashings and any joints remain in a weatherproof condition. Any damaged areas or areas showing signs of deterioration which would allow water ingress must be repaired immediately.
- 10.2 A water-based chemical treatment recommended by Viking Roofspec as being suitable for use with bitumen-based products must be used for the removal of organic material. Petroleum-based solvents or cleaners must not be used.

Prevention of Fire Occurring

- 11.1 Separation or protection must be provided to Viking CertainTeed Asphalt Roofing Shingles from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 - C/AS6 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.

Control of External Fire Spread

- 12.1 Fire rated roof construction systems using the Viking CertainTeed Asphalt Roofing Shingles have not been assessed and are outside the scope of this Appraisal.

External Moisture

- 13.1 Viking CertainTeed Asphalt Roofing Shingles, when installed in accordance with this Appraisal, will shed precipitated moisture and therefore meet the performance requirements of NZBC Clause E2.3.1. They will also prevent the penetration of water that could cause undue dampness, or damage to building elements, therefore meeting the performance requirements of NZBC Clause E2.3.2.

Construction Moisture

- 13.2 Roofs clad with Viking CertainTeed Asphalt Roofing Shingles, if ventilation requirements are met as in the Technical Literature, allow excess moisture present at the completion of construction to be dissipated without permanent damage to building elements and therefore meet the performance requirements of NZBC Clause E2.3.6. This is achieved by ensuring the construction moisture levels are no higher than 18% when the shingles are laid and before the ceiling is closed-in, as well as providing an adequate level of roof cavity ventilation.

Water Supplies

- 14.1 Water is not contaminated by Viking CertainTeed Asphalt Roofing Shingles which comply with AS/NZS 4020.
- 14.2 The first 25 mm of rainfall from a newly installed Viking CertainTeed Asphalt Roofing Shingles roof must be discarded before drinking water collection starts. This is to remove residues which may have developed in the processes involved in the production of a Viking CertainTeed Asphalt Roofing Shingles.

- 14.3 Though Viking CertainTeed Asphalt Roofing Shingles have been shown to comply with AS/NZS 4020, 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 sterilization system. Sterilization systems such as this have not been assessed and are outside the scope of this Appraisal.

Internal Moisture

- 15.1 Adequate roof space ventilation is necessary to ensure roof space internal moisture levels and temperatures are controlled. Roof space ventilation requirements are given in the Technical Literature.
- 15.2 Ideally, air should be allowed to flow from the bottom to the top of the roof. In skillion-type roofs, a clear, uninterrupted, ventilated air gap of at least 25 mm must be present for plywood and Strandsarking. Plywood with tongue-and-groove joints should be used on skillion roofs to minimise the restrictions caused by timber blocking. If required by the roof design or occupancy, perforated soffit linings, soffits and ridge vents should be used to minimise the quantity of moisture and heat accumulating in the roof space.
- 15.3 Viking Roofspec should be consulted for further advice and information on roof ventilation and moisture control, especially when the roof design is unusual.

Installation Information

Installation Skill Level Requirements

- 16.1 Installation of all components and accessories supplied by Viking Roofspec must be completed by installers trained and approved by Viking Roofspec.
- 16.2 Installation of the components supplied by the building contractor must be completed by or under the control of a Licensed Building Practitioner with the relevant license class, in accordance with the instructions given within the Technical Literature and this Appraisal.

System Installation

Sheathing

- 17.1 Plywood, Strandsarking and framing must have a maximum moisture content of 18% at the time of the installation of the shingles.
- 17.2 Nails must be fixed according to Table 3 and Table 4 for plywood and Table 5 for Strandsarking. Fixings must be positioned no closer than 10 mm from the sheet edges. All sheet edges must be supported by framing or blocking, except that blocking is not required under the joints where tongue and grooved sheets are used.

Table 3: Fixing Centres for 15 mm and 17 mm Plywood - All sheet edges supported

NZS 3604 Wind Zone	Fixing Centres (mm), Sheet Edges, Intermediate Supports		
	Roof Slope 9° - 20°		Roof Slope 20 - 60°
	0.2w* from roof edge**	Beyond 0.2w* i.e. remainder of roof	
Low	150	300	300
Medium	125	225	250
High	75	150	150
Very High	75	125	120
Extra High	55	100	100

* Where w = width of building

**Roof edge = eaves, barge, hips, ridges, fascia, gables

Table 4: Fixing Centres for 15 mm and 17 mm Plywood - Tongue and Grooved Plywood

NZS 3604 Wind Zone	Fixing Centres (mm), at Supports		
	Roof Slope 9° - 20°		Roof Slope 20 - 60°
	0.2w* from roof edge**	Beyond 0.2w* i.e. remainder of roof	
Low	100	200	200
Medium	75	150	150
High	75	150	150
Very High	50	75	75
Extra High	35	65	65

* Where w = width of building

**Roof edge = eaves, barge, hips, ridges, fascia, gables

Table 5: Fixing Centres Requirements for Strandsarking

NZS 3604 Wind Zone	Fixing Centres (mm)	
	Panel Ends	Intermediate Supports
Up to and including High	150	150
Very High and Extra High	150	100

Shingle Underlay

- 17.3 The shingle underlay must be tightly laid horizontally across the roof, and completely cover hips, ridges [except where ridge vents are used], and valleys.
- 17.4 When the roof pitch is between 9° and 18°, either one layer of Viking Peel & Stick Waterproofing Membrane or two layers of either Viking 15W Saturated Felt or Viking Synthetic Roofing Underlay is required. When two layers are used the underlay must be lapped by half the width of the roll, resulting in a double thickness. End laps must be at least 100 mm.
- 17.5 When the roof pitch is greater than 18°, one layer of Viking 15W Saturated Felt or Viking Synthetic Roofing Underlay is required. The upper sheets must be lapped by at least 50 mm over the lower sheets.
- 17.6 Only sufficient fasteners to temporarily hold the underlay in place need be used.

Fixing Shingles

- 17.7 The number and location of fasteners required for each shingle type and roof slope is given in the Technical Literature. Care must be taken to ensure the fasteners are driven in straight and are flush with the shingle surface.
- 17.8 Viking Roofing Sealant must be laid in spots on top of all 'drip edges' or eaves where present. The spots of sealant should be approximately 20 mm from the edge of the roof. Where required, Viking Roofing Sealant must also be used to seal under or hold down shingles at ridges, hips, upstands and around penetrations.
- 17.9 When installing the shingles in all Wind Zones, shingle tabs can be bonded with a dab of Viking Roof Sealant, whenever unusually cold or windy conditions occur.
- 17.10 In High, Very High and Extra High Wind Zones, Viking Roofing Sealant may be used when installing the shingles at times of the year when conditions warrant it.
- 17.11 Dabs of Viking Roofing Sealant must be about 20 mm in diameter, and placed in front of the sealing strips in a manner which does not interfere with the self-bonding process.

Inspection

- 18.1 The Technical Literature must be referred to during the inspection of Viking Certainteed Asphalt Roofing Shingles installations.

Health and Safety

- 19.1 Safe use and handling procedures for Viking CertainTeed Asphalt Roofing Shingles are provided in the manufacturer's Technical Literature.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

- 20.1 The following tests have been carried out by overseas laboratories by, or on behalf of, Underwriters Laboratories Inc. in order to show compliance with ASTM D3462: behaviour on heating; tear strength; wind resistance; penetration of asphalt; asphalt softening point; compatibility; minimum net mass and average net mass; and mass of glass mat-asphalt, and mineral matter.

Other Investigations

- 21.1 Weathertightness, structural and durability opinions have been provided by BRANZ technical experts.
- 21.2 The manufacturer's Technical Literature has been examined by BRANZ and found to be satisfactory.
- 21.3 Site inspections have been undertaken by BRANZ to assess the practicability of installation.
- 21.4 The long-term performance of properly installed mastic-bonded and self-adhesive roofing shingles in New Zealand and many countries overseas, along with durability and non-hazardous nature of the materials used, has been noted. The overseas and New Zealand experience of asphalt roofing shingles forms the basis of the durability opinion.

Quality

- 22.1 The manufacture of Viking CertainTeed Asphalt Roofing Shingles has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory.
- 22.2 The quality of the materials and accessories supplied by Viking Roofspec is the responsibility of Viking Roofspec.
- 22.3 Quality on site is the responsibility of the Viking Roofspec trained and Approved Installer.
- 22.4 Designers are responsible for the building design, and the building contractor is responsible for the quality of installation of the roof framing and plywood or Strandsarking sheathing in accordance with Viking Roofspec's instructions.
- 22.5 Building owners are responsible for the maintenance of Viking CertainTeed Asphalt Roofing Shingles in accordance with the instructions of Viking Roofspec.

Sources of Information

- AS/NZS 1170: 2002 Structural design actions.
- AS/NZS 2269: 2012 Plywood - Structural.
- AS/NZS 4680: 1999 Hot-dip galvanised [zinc] coatings on fabricated ferrous articles.
- AS/NZS 4020: 2005 Testing of products for use in contact with drinking water.
- ASTM D3462-92 Standard Specification for asphalt shingles made from glass felt and surfaced with mineral granules.
- NZS 3602: 2003 Timber and wood-based products for use in building.
- NZS 3603: 1993 Timber structures standard.
- NZS 3604: 2011 Timber-framed buildings.
- Acceptable Solutions and Verification Methods for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third Edition July 2005 (Amendment 7, 01 January 2017).
- Ministry of Business, Innovation and Employment Record of Amendments for Compliance Documents and Handbooks.
- The Building Regulations 1992.

Amendments

Amendment No. 1, dated 12 June 2013.

This Appraisal has been amended to update clause changes as required by the introduction of NZBC Fire Clauses C1 – C6 Protection from Fire and A3 Building Importance Levels.

Amendment No. 2, dated 9 June 2014.

This Appraisal has been amended to add Viking Synthetic Roofing Underlay.

Amendment No. 3, dated 2 April 2015.

This Appraisal has been amended to include Water Supplies.

Amendment No. 4, dated 19 August 2015.

This Appraisal has been amended to update Strandsarking information.

Amendment No. 5, dated 02 February 2017.

This Appraisal has been amended to add a new shingle profile.



In the opinion of BRANZ, **Viking CertainTeed Asphalt Roofing Shingles** is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **Viking Roofspec**, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
2. **Viking Roofspec**:
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions.
 - d) Warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any guarantee or warranty offered by **Viking Roofspec**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Viking Roofspec** or any third party.

For BRANZ



Pieter Burghout

Chief Executive

Date of Issue:

21 November 2012



Viking CertainTeed System Product Warranty

CertainTeed Warranty _____ (Years)

(CT20, XT30, Landmark (30,40 or 50), Hatteras, Highland Slate and Independence)

Viking Roofspec offers this Warranty for the CertainTeed System for the period of time noted in Table 1.1 found in paragraph 6 b) below from the Warranty Commencement Date ("Warranty Period").

1. Viking Roofspec warrants that the CertainTeed System will, subject to the terms set out below; be free from manufacturing defects for the Warranty Period, when installed in accordance with all Viking Roofspec specifications current at the time of installation, including, but not restricted to the technical data and standard details as listed on the Viking Roofspec website at www.vikingroofspec.co.nz ("Viking Specifications").
2. This Warranty covers only materials supplied by Viking Roofspec as the CertainTeed System, including the shingles, proprietary accessories and underlay; provided materials were new and unused at the time of installation and have not been disturbed thereafter.
3. Warranty Commencement Date _____
(Date of completion of the CertainTeed System installation)
4. The CertainTeed System
 CertainTeed _____, colour _____
 The Building _____
 Project address _____
 Installed by _____
5. This Warranty provides protection against any shingle defect (such defect being of a type covered under the terms of this Warranty) that arises in the course of ordinary and everyday wear and tear to the roof caused by normal exposure to the elements. It does not provide protection against damage caused by situations and events beyond normal exposure conditions, such as, but not limited to:
 - (a) failure or damage resulting from any failure that has been caused in part or in whole by the CertainTeed System not being installed in accordance with the Viking Specifications. Viking Roofspec does not give any warranty as to the suitability, qualification or abilities of any installer and will not, in any circumstances be liable for the actions or omission of any installer. Viking Roofspec requires that all Viking Approved Applicators provide a separate Workmanship Warranty covering any defects in the installation of the CertainTeed System;

Roofspec
Viking
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- b) damage caused by winds greater than those listed in the following Table 1.1 for each product. Damage caused by winds below and up to the maximum shown in Table 1.1 is limited to the minimum fifteen (15) year durability period required by New Zealand Building Code (contained as the First Schedule to the Building Regulations 1992):

CertainTeed System	Warranty Period	Wind Warranty
CT20	20 years	Medium (133km/h)
XT30	30 years	Medium (133km/h)
Landmark 30	30 years	Very High (175km/h)
Hatteras*	40 years	Very High (175km/h)
Independence*	50 years	Very High (175km/h)
Highland Slate	50 years	Very High (175km/h)

*205 km/h when installed as per Viking Roofspec's 'extra high' fixing specification

- c) Acts of God which include, but are not limited to, acts of nature such as earthquakes, storms, cyclones, floods, lightning strikes, tornado, hailstorm or falling objects and explosions;
- d) damage caused by materials used as the substrate over which the CertainTeed System is applied;
- e) damage caused by any shifting or altering of the Building, settlement, distortion or cracking, infiltration or condensation of moisture in, around, or above the walls of the Building or the failure of other Building components;
- f) damage caused by traffic on the roof;
- g) failure to provide adequate ventilation for any roof cavity;
- h) objects penetrating the CertainTeed System or mechanical damage;
- i) chemical or substance (save those specifically approved for use with CertainTeed shingles by Viking Roofspec);
- j) environmental factors including dirt, pollutants and biological agents, fungi, bacteria or spores. In the case of shingles sold as Algae Resistant (AR) shingles, Viking Roofspec will clean, replace or repair, at our option, per the terms of this Warranty, only shingles that are proven to be contaminated with algae during a term of 10 years from the Warranty Commencement Date; or
- k) accident or intentional or negligent acts, misuse, abuse, vandalism or civil disobedience or the like.
6. In addition to the above limitations, this Warranty will be void and Viking Roofspec will not be liable under it if;
- a) any alteration or repair is made on or through the CertainTeed System (including, but not limited to: structures, fixtures or utilities) without prior written authorisation from Viking Roofspec;
- b) the owner of the Building fails to use reasonable care in maintaining the CertainTeed System. Maintenance includes (but is not limited to), that outlined in BRANZ appraisal 276 and maintenance guides as amended and updated from time to time on the Viking Roofspec website at www.vikingroofspec.co.nz. You acknowledge that Viking Roofspec have no obligation to notify you of changes to the care and maintenance information; or
- c) the Building is moved from the site at which the CertainTeed System was originally installed
7. Change in the aesthetics, colour or finish of the CertainTeed System is not covered by this Warranty.
8. Viking Roofspec shall not be liable and this Warranty (or any implied warranties which are not excluded under clause 17) for any consequential, indirect or special loss or damage of any kind whatsoever, or loss of profits, whether under contract, tort or otherwise.

Viking
CertainTeed
Shingles

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9. Viking Roofspec's liability is in any circumstances limited to (at the option of Viking Roofspec) either;
- providing for the repair, partial replacement or cleaning of the original CertainTeed System,
 - or providing a credit to be applied towards the purchase of a new CertainTeed System, calculated *pro rata*, based upon the number of remaining months of the unexpired Warranty Period, using the current material prices for the CertainTeed System. The maximum *pro rata* value allowed by Viking Roofspec for repair or credit shall not exceed the original purchase price of the product supplied.
10. The obligations under this Warranty shall only be enforceable against Viking Roofspec upon completion of the installation of the CertainTeed System; completion of the installation contract; and once payment in full has been received for the product supplied.
11. Should any defect occur which requires a remedy under the terms of this warranty, then the defect must be notified to Viking Roofspec in writing within fourteen (14) days of discovery. By notifying Viking Roofspec you authorise Viking Roofspec to investigate the Warranty claim to assess whether it falls within the terms of this Warranty. Should our investigation of the claim find that the cause is outside the terms of this Warranty, then you acknowledge and agree that Viking Roofspec may charge you its reasonable investigation costs. You agree to provide Viking Roofspec free access to the CertainTeed System in order to investigate or to affect repairs under this Warranty during normal business hours.
12. Where the applied shingle contains self-sealing asphalt strips, if any of the strips fail to properly activate within the first year of application, the customer must notify Viking Roofspec under the terms of this Warranty and Viking Roofspec must be afforded the opportunity to hand seal, at our own expense, any non-sealed shingles.
13. Any remedial work required under this Warranty shall be as determined by Viking Roofspec and shall be carried out in accordance with the Viking Specifications by a contractor nominated by Viking Roofspec. Viking Roofspec reserves the right to discontinue or modify any CertainTeed System or component, without notice to the consumer. In the event that a material or component is no longer available for repair or replacement, suitable products will be designated by Viking Roofspec, of comparable quality to the original materials provided. Viking Roofspec does not accept liability for delay or variance in comparison to original materials, in the event of materials having to be replaced.
14. Nothing in this Warranty shall require Viking Roofspec to shift any fixtures, plant, equipment, flashings or other items so as to allow access to part of any CertainTeed System to be repaired or replaced. Neither shall Viking Roofspec be liable for any costs involved in such shifting or reinstallation.
15. In the event of a repair or replacement pursuant to this Warranty, this Warranty shall also apply to the replaced or repaired or cleaned shingles and will extend for the balance of the Warranty Period at the time of such repair, cleaning or replacement.
16. This Warranty represents the limit of Viking Roofspec's liability for the CertainTeed System. All other warranties, express or implied, are hereby excluded to the maximum extent permitted by applicable law.



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- 17. Notwithstanding any other provisions of this Warranty, nothing in this Warranty is intended to limit any condition, warranty, right or remedy available under or imposed by any applicable legislation (including, for the avoidance of doubt but without limitation, the Building Act 2004, the Fair Trading Act 1986 and the Consumer Guarantees Act 1993) except to the extent permitted by such legislation.
- 18. This Warranty shall be governed according to the laws of New Zealand and any disputes shall be decided in the courts of New Zealand.

Warranty Workmanship no

Viking Warranty No

For Viking Roofspec

Date issued

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