

READYSLATE®

Product Technical Statement V1-0723

Product Description:

The Building Agency Ltd supplies READYSLATE® Roofing to be used as an external roof.

READYSLATE® maintains all the exceptional properties of natural slate, a product that has been formed by nature for over 500 million years with unmatched and unbeatable characteristics.

READYSLATE® roofing is the first pre-assembled natural slate roofing system. READYSLATE® roofing is composed of two layers, firstly, the SUPPORT LAYER is a waterproofed bituminous self-adhesive membrane composed of a non-woven polyester felt reinforcement and covered with SBS-modified mastic. The second layer is the VISIBLE LAYER which comprises a high-quality 3-4mm thick hand-quarried natural slate with a density of 2850 Kg/m³. The grade of Slate is ASTM S-1 Grade.

Description

- > Panel size 1300 x 330 x 6mm
- > The top layer consists of 6 x Natural Slates size 300 x 200 x 3.5mm
- > The bottom layer consists of an SBS waterproofing membrane
- > Natural Slate is manufactured from Tectonic Compression with 3.5mm pre-drilled holes
- > Weight 21kg/m² or 27kg per box.
- > Suitable for residential applications.

Manufacturing: Production process of natural slate by CUPA PIZARRAS

Geological studies - Before initiating the extraction, studies are made on the potential of the deposit reserves by taking a sounding. This is done to identify the quality of the slate.

Extraction - Slate is extracted in huge blocks which are later diamond wire sawed into smaller blocks. These smaller blocks are transported by trucks to the transformation warehouse factory located within the quarry.

Transformation - Each slate block is classified and then follows this finishing process:

- SAWED OFF. These blocks are sawed into varied sizes depending on the dimensions of the slate which will be produced.
- HAND CUT. The skilled “splitters” exfoliate the slate into thin layers. This handcrafted and meticulous technique allows the finished product to be of high quality.
- BEVELED. The edges of each piece are bevelled by a machine in order to make them into the exact size which has been required and thus giving it a characteristic finish.

CUPA PIZARRAS complies with the ISO 14001 certification which reflects its plan to protect the environment.

www.cupapizarra.com

Scope of Use: READYSLATE® Roofing panels can be installed in wind zones up to and including Very High as defined in NZS 3604:2011. In all exposure zones, as defined in NZS3604 and any proximity to a relevant boundary.

In conjunction with a primary structure that complies with the NZ Building Code or where the designer has established that the existing structure is suitable for the intended building work (as applicable).

Limitations:

- > Membrane temperature should not exceed 50°C during installation.
- > Do not install on the pitch less than 18.5 degrees (32%). For installation under that level, please contact The Building Agency email info@buildingagency.co.nz
- > The substrate must be properly prepared before starting any roofing job.
- > Remember to consider any possible interactions between READYSLATE® waterproof SBS membrane and any other waterproofing elements used, if any.
- > Do not install while the temperature is less than -20°C.

Conditions:

The specification and installation must be carried out or supervised by a suitably qualified practitioner.

Further Information:

For Design, installation, maintenance, and warranty information, and for supply, please email info@buildingagency.co.nz or visit www.thebuildingagency.co.nz

Compliance with the NZBC: The following clauses of the NZBC are applicable to READYSLATE® Roofing and it complies with these requirements as explained below.

Structure - B1: Clause B1.3.1, B1.3.2, B1.3.3 (a, e, f, h, j, q) - Alternative Solution

The panels have been assessed to NZS3603 &/or NZS 3604 to support a 'Heavy Roof' (>20kg/m²&<60kg/m²) Material self-weight is 21kg/m²). The panels have a modulus of rupture (MOR) of >43MPa (439,142kg/m²). The panels have conducted a Freeze Thaw Test, in the context of the material data sheet "Fulfill < 0.6%" means that the material being tested must experience less than a 0.6% loss in weight or volume after undergoing a specified number of freeze-thaw cycles. The panels have completed the Thermal Cycle Test. The results are classified as follows: T1: No apparent change or some surface rust or other changes that neither affect the structure, nor form runs of discolouration. Refer to <https://www.cupapizarras.com/int/news/declaration-of-performance>

The panels were tested at a very high wind zone which = 49.174m/s (110mph/177 kph) with no panel displacement. Complies with High-Velocity Hurricane Zone (HVHZ) to TAS 100-95" test procedure for wind and wind-driven rain resistance. (PRI test report Project No 2039T0001) Refer to www.thebuildingagency.co.nz and for local wind zones www.level.org.nz/site-analysis/wind

Durability - B2: Clause B2.3.1 (b) – Alternative Solution

The panels come with a 15-year durability warranty. In conjunction with market evidence, slate longevity expectancy is 100+ years. The SUPPORT-LAYER, refer to Danosa SBS waterproofing membrane, Declaration of Performance N° DoP: LBA-001 refer to www.danosa.com/global/product/self-dan-pe/

Fire Performance – C: Clause C3.7 (a) – Acceptable Solution

Panels are deemed non-combustible. Test result BROOF(t4)/Class A1 (UNE EN 12326-1) - Test Standard EN13501- 5 Refer to www.soprema.co.uk/en/article/sopravoice/fire-safety-and-brooft4-new-classification-system and <https://www.cupapizarras.com/int/news/declaration-of-performance/>

External Moisture - E2: Clauses E2.3.1, E2.3.2 Alternative Solution

The panels were tested with an ultimate wind speed of 49.174m/s (110mph/177 kph) with a water spray of 223mm/per hour, the test duration was 10 min at this setting. The test result was that no panel displacement or water infiltration when built to the test assembly's specifications. Complies with the High-Velocity Hurricane Zone (HVHZ) to TAS 100-95" test procedure for wind and wind-driven rain resistance (Test report - PRI Construction Materials Technologies LLC TAS No 100 Test Method and Compliant Project No 2039T0001). Refer to www.thebuildingagency.co.nz

Hazardous Building Materials - F2: Clause F2.3.1. Alternative Solution

Dangerous substances emission - none in conditions of use as external roofing or cladding. (refer to UNE EN 12326-1) Refer to www.thebuildingagency.co.nz

Installation:

For Installation and Technical Details refer to www.thebuildingagency.co.nz or ask The Building Agency at 09 415 2669 for further information.

Sources of Information and References

- PRI Construction Materials Technologies LLC Test Method and Compliant to TAS 100-95 Project No 2039T0001.
- Declaration of Performance DoP (no.1/2019_3/10) Standard UNE EN 12326-1 & Standard ISO140ISO21930.
- Declaration of Performance DoP (No.3/2022_1/10) System 4 Non-carbonate slate originated by tectonic compression.
- Environmental Product Declaration DAPcons. c-004.105 according to ISO14025 & EN15804+A1.
- Declaration of Performance N° DoP: LBA-001 Danosa SBS waterproofing membrane.