Quality Construction Solutions

PRODUCT TECHNICAL STATEMENT

BRICK VENEER & STRUCTURAL MASONRY MORTAR

13.08.2024 V1

PRODUCT DESCRIPTION

The range of Ezymix Brick Veneer Mortar & Ezymix Structural Mortar are formulations containing cement, sand, oxides, and admixtures that form mortar when mixed with water. Ezymix mortars are classed into two categories (1) - EM500 - EM519 are designed for use with Brick Veneer and exceed the requirements of the BRANZ SR 258 (2011 -Critical Properties of Mortar for good Seismic performance of Brick Veneer) and (2) - EM520 – EM524 are designed for use with Concrete Blocks and exceed the requirements of NZS 4210:2001 Masonry Construction.

SCOPE OF USE

Ezymix mortars are suitable for use with structural wall and/or external wall cladding work and for laying brick veneers. All mortars achieve a 28-day strength that meet either the BRANZ SR 258(2011) study report for Brick Veneer construction which requires a minimum 28 day compressive strength of 6MPa or the EM520 Structural Mortar range that achieve a 28 day compressive strength greater than 12.5MPa to comply with NZS4210.

Ezymix Brick Veneer Mortar (EM500 – EM519) – For the laying of clay and concrete veneers.

Ezymix Structural Mortar (EM520 – EM524) – For the laying of concrete blocks.

COMPLIANCE TO THE NEW ZEALAND BUILDING CODE

Ezymix Mortars are used in conjunction with other products such as masonry blocks, brick veneers, wall ties and any required reinforcement to make up a system such as a structural or brick veneer wall. To ensure compliance wit the New Zealand Building code all Ezymix mortars need to be mixed and used in accordance with the information on the back of the bag.

Structure B1 – Ezymix Mortars comply with either the BRANZ Study Report SR 258 (2011) and achieve a compressive strength greater than 6 MPa required by this study report or in the case of the EM520 Structural mortar range achieve a compressive strength greater than 12.5MPa required by NZS4210 to achieve compliance with the requirements of section B1 of the New Zealand Building Code.

Durability B2 – Ezymix Mortars comply with either the BRANZ Study Report SR 258 (2011) and achieve a compressive strength greater than 6 MPa required by this study report or in the case of the EM520 Structural mortar range achieve a compressive strength greater than 12.5MPa required by NZS4210 to achieve compliance with the requirements of section B2 of the New Zealand Building Code.

External Moisture E2 – Ezymix Mortars comply with either the BRANZ Study Report SR 258 (2011) and achieve a compressive strength greater than 6 MPa required by this study report or in the case of the EM520 Structural mortar range achieve a compressive strength greater than 12.5MPa required by NZS4210 to achieve compliance with the requirements of section 9.2 of E2/AS1 of the New Zealand Building Code and have a chloride content less than 0.04% by mass required by NZS4210 for mortars exposed to weather.

Fire Performance C – Ezymix Mortars are classified as noncombustible.

Hazardous Building Materials F2 – Ezymix Mortars comply with section F2.3.1 of the New Zealand Building Code. SDS are available on the Ezymix website (www.ezymix.co.nz).

INSTALLATION AND MIXING

All Ezymix mortars must be installed by suitably trained/qualified brick and block layers who understand the requirements of NZS4210 and the BRANZ Masonry Veneer Good Practice Guide.
It is important that the correct amount of water is used when mixing Ezymix Mortars to ensure that the correct 28 day compressive strength is achieved.
It is important not to over mix mortar, Ezymix Mortars require no more than 5 minutes mixing time, excessive mixing will add an excessive amount of air into the mortar mix which will reduce the final 28 day strength of the mortar.
Under normal conditions Ezymix Mortars have a board life of 30 – 40 minutes, a small amount of water may be added to keep the mortar at the desired consistency. It is important not to add water to mortar that has started to stiffen, any mortar than is more than 1 hour old should be discarded instead of remixing.
It is important to follow the Application Temperature range on the back of the Ezymix Mortar bags. Temperatures below +5˚C will prevent any type of mortar from setting resulting in a weak final product. Temperatures above +30˚C may cause the mortar to dry too fast before the cement can hydrate resulting in a weak final product.

APPEARANCE

Consistent shades and colours may not be achieved if mixing times and water content vary from mix to mix.
It is important to protect bricks and blocks from rain or showers prior to installation, freshly laid mortar must be protected from rain or showers to prevent mortar discoloration. Mortar joints must be tooled consistently at the same time to prevent mortar discoloration.
Efflorescence is not deemed to be a defect as it is a natural part of the curing process that is usually a temporary phenomenon. The occurrence and management of efflorescence is outside of the control of Ezymix.

MAINTENANCE

It is the responsibility of the property owner to conduct annual inspections of their buildings, this includes cleaning and repairing any cracks, as necessary.