



DESCRIPTION

Shell Limestone a fossiliferous limestone quarried from the Marte deposits found west of Mount Gambier in South Australia. It is a sedimentary rock formed from aqueous deposits composed largely of the minerals calcite and aragonite, which are different crystal forms of calcium carbonate (CaCO₃). The Shell limestone is predominately light in colour but can range into deeper tones of cream to yellow or biscuit color. The stone originated from extensive colonies of lace coral that flourished on an open-marine shelf in shallow calm warm waters. It has been estimated to have formed over 30 million years ago and its composition consists of bryozoa, foraminifera and echinoid spines and plates. It has a dense consistent texture with shelly matter evident in its surface.

OTHER NAMES

Cream Limestone, Mount Gambier Limestone, Gambier Stone

FEATURES & BENEFITS

- Aesthetic appeal
- Strong thermal properties ensuring limited heat conduction
- Reduction of noise transfer
- Sound clarity enhancement in public spaces
- Fire retardant qualities
- Colour consistency
- Unique varied texture

TECHNICAL DATA

Stone Type	Coastal limestone
Colour	White to pale brown
Bulk Density	1.21 tonne/m ³
Compressive Strength	3.55 mpa dry / 1.4 mpa wet
Texture	Fine to medium
Content	Calcite / trace dolomite
Finishes	Saw cut and split face
Forms	Blocks, cladding and rubble

AREAS OF USE

Building construction - commercial and residential, landscaping, feature walls, sculpting, noise retardant barriers, fencing and other varied construction uses.

SPECIFICATIONS

Limestone by definition is a rock that contains at least 50% calcium carbonate by weight. Shell limestone is calcium carbonate, dominantly calcite with trace dolomite. All limestones contain a small percentage of other materials. These can be particles of quartz, feldspar, clay minerals, pyrite, siderite and other minerals.

LAYING LIMESTONE

Blocks are laid as per normal block laying techniques on a mortar bed. Cladding is laid over masonry or a compressed sheet substrata with either an adhesive fix or a combination of adhesive and mechanical fixing. Although Shell Limestone is generally monochromic some colour and texture variation may occur and it is suggested to blend pallets when laying. For more information refer to our 'Laying Limestone' technical data sheet.

COMMON SIZES

Generally Shell limestone is a dimension cut stone. Common sizes are 500mm long by 245mm or 330 m high and 100mm or 30mm thick. Customer specified dimensions are also available.

	Length	Height	Thickness	Weight (dry)
Limestone Block	500mm	330mm	100mm	20kg
	660mm	290mm	100mm	24kg
	660mm	240mm	100mm	19kg
Limestone Cladding	500mm	330mm	35mm	6kg
	660mm	290mm	35mm	8kg
	660mm	240mm	35mm	7kg

Heights and lengths can vary +/- 5mm

PATTERNS

As limestone is a processed stone many pattern variations can be achieved. Utilising dimension cut stone as per our 'Common Sizes' chart the following standard patterns can be achieved:

Stretcher / Running Bond	Stacked Bond
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We also offer 2 exclusive patterns supplied cut to size and ready to lay:

'Cottesloe' - mixed bond	'Sorrento' - mixed course bond
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For more information refer to our 'Patterns' technical data sheet.

FINISHES

Saw Cut

This finish is achieved by processing limestone through a wet cutting process using diamond or tungsten tipped blades. The stone produced has a smooth and lightly pitted textured finish to the face with some exposed fossilised marine material. Saw blade marks may still be evident however they can be removed by sanding the surface of the stone prior to sealing.

Split Face Texture

This finish is created by mechanically splitting the stone face to leave the open grain. This process exposes the natural textures of the stone including exposing shell and coral fragments if present.

CLEANING & SEALING

Limestone Sealer as supplied by Limestone Australia is designed to penetrate deep into the stone to give added strength, reduce staining and repel water and other contaminants. Limestone Sealer also contains a biocide that can inhibit mould and algal growth. Prior to applying sealant it is necessary to remove surface dust from the limestone. Most dust and residue can be removed with a stiff brush or a washing process. Once clean and dry the sealant can be applied to protect the stone. For more information refer to our 'Sealing Limestone' technical data sheet.

LIMITATIONS & PRECAUTIONS

Stone discolouration and staining

Constant damp conditions may cause discolouration to the limestone. In addition to a damp proof barrier and the inclusion of appropriate weep holes as required by building regulations it is recommended to use a waterproofing additive to the mortar or grout mix. The waterproofing additive acts to provide a barrier against dampness caused from movement of moisture by capillary action. Where areas of excessive moisture may be present additional physical barriers to eliminate the absorption of moisture into the stone is advised. Generally these areas occur to the top of exposed walls and at ground level where soil or paving may abut the limestone. It is suggested the installation of flashing to the top of walls to dispel water from the face of the wall surface and an alternative base block at ground level be used in areas that may be susceptible to moisture penetration. In some cases utilising a waterproofing membrane may be a good solution to inhibit water penetration. It is recommended to saturate seal all exposed surfaces using a sealer designed specifically for limestone as noted above.

Blending pallets

Although limestone is fairly consistent in colour some tonal variation can occur. It is recommended units from different pallets should be mixed together to make allowances for these natural variants.

Non structural

Limestone is not a structural stone and is to be used with structural framing and brick ties as per industry standards.

Bespoke cutting limitations

For bespoke cutting dimensions are limited to the sizes of the raw material as processed from the quarry. Raw Limestone is generally cut as large blocks 1320mm x 650mm x 240mm. Designing of special pieces should be within these parameters. In some cases longer lengths may be available. Contact your supplier for additional sizing.

HEALTH & SAFETY

When quarry products are cut, drilled, sawed, routed, chased, sanded, broken up or ground, crystalline silica dust may be released. To stop dust build-up regularly wet, sweep or vacuum and put dust in a covered container.

Breathing crystalline silica dust repeatedly may lead to lung diseases including bronchitis and silicosis. Breathing heavy concentrations of dust may cause coughing and sore throat. The 'National Exposure Standard for Respirable Crystalline Silica' must be complied with. Wear an approved P2 dust mask (AS/NZS 1715/1716) when exposed to dust. Dust can cause eye irritation, wear eye protection (AS/NZS 1337).

Stone weight is generally worked out at 1500kg per cubic metre when dry. Stone blocks can vary in weight due to size and the amount of water content that may have penetrated the stone. A water saturated stone will increase in weight. Care must be taken in using correct lifting procedures to eliminate injury in handling stone. Please note 'Common Sizes' chart for approximate weights of stone.

TRANSPORT & STORAGE

Limestone is an inert material and transport loads do not need to be placarded. Limestone can be transported on all main roads according to the current requirements for heavy transport applied to that road. Loads must be secured appropriately for transport.