DESCRIPTION

Oyster Limestone comes from a recently re-opened historical stone quarry located at Coobowie near Edithburgh on the Yorke Peninsula in South Australia. Oyster limestone is a fine-grained, light grey to taupe color, flat-lying, fossiliferous stone. Its age has been determined to be from the Miocene age (15-20 Ma) and is correlated with the Port Willunga Formation. The component of visible shelly material is variable. Stone dug from a nearby well around the 1890s showed no signs of fretting and had developed surface hardness. The department of mines conducted tests of the limestone for suitability as building stone during the 1950s and the performance of the blocks used in local buildings around this time show no visible signs of fretting or decay. Contemporary geotechnical testing reveals the limestone to compare favourably to Gambier (shell) limestone and Western Australian limestone (Cream/ Biscuit).

OTHER NAMES

Yorke Peninsula Limestone

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	Cream to grey
Bulk Density	1.324 tonne/m^3
Compressive Strength	2.8 mpa dry / 1.8 mpa wet
Texture	Fine to medium grade
Content	70-90% calcium carbonate
Finishes	Honed, split face and sand blasted
Forms	Blocks and cladding

AREAS OF USE

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

SPECIFICATIONS

Oyster limestone contains at least 70%-90% calcium carbonate by weight. 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. The ends of the stone are usually quarry cut which gives a minimal variation to the length and 'squareness' of the stone. If any variation does occurs this is generally hidden by the mortar jointing. To ensure accurate squareness it is advised to specify the stone to be dock cut at the ends. Although Oyster 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 Oyster limestone is a dimension cut stone. Common sizes are 500mm long by 245mm or 330 m high and 100mm or 35mm thick. Customer specified dimensions are also available.

	Length	Height	Thickness	Weight (dry)
Limestone Block	500mm	330mm	100mm	22kg
	500mm	245mm	100mm	16kg
Limestone Cladding	500mm	330mm	35mm	8kg
	500mm	245mm	35mm	6kg

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

We also offer 2 exclusive patterns supplied cut to size and ready to lay:

'Cottesloe' - mixed bond	'Sorrento' - mixed course bond

For more information refer to our 'Patterns' technical data sheet.

FINISHES

Honed

This finish is achieved by honing the surface of the limestone. The stone produced has a ground level finish to the face with some exposed fossilised material. Saw blade marks may still be evident which can be removed by sanding or grinding the surface of the stone prior to sealing if required.

Split Face Texture

This finish is achieved on site by a stone mason through the technique of splitting the stone face.

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 contaminates. 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 additional 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.

Resistance to salt attack

Geological testing showed that Oyster limestone's has a lower resistance to salt attack than the other Australian Limestones showing some surface pitting but noted that it still compares favourably with Gambier limestone and stated that additional engineering may be required to protect the stone. Minimising moisture penetration in the form of a penetrating sealer or similar mechanical banner to protect the stone as noted above would assist in minimising impact on the stone.

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. Designing of special pieces should be within these parameters. 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 back 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.

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