

HYDRATED LIME

PRODUCT DESCRIPTION

Adelaide Brighton Cement produces Hydrated Lime, conforming to Australian Standard AS 1672.1.

Hydrated Lime is manufactured at our Angaston works, South Australia by treating Quicklime with enough water to satisfy its chemical affinity, before being ground and air classified to produce a fine white powder.

What is lime?

Hydrated Lime (Calcium hydroxide) is an important material for use in the construction industry, chemical processing, and water treatment.

The manufacture of Hydrated Lime starts by calcining high quality limestone (Calcium carbonate) at elevated temperatures to produce Quicklime (Calcium oxide), a volatile powder.

Hydrated Lime in turn is produced by reacting Quicklime with a controlled amount of water to form a dry white powder.

Chemical reactions:

- $\text{Limestone} + \text{heat} (800^{\circ}\text{C}) = \text{Calcium oxide} + \text{Carbon dioxide}$
 $\text{CaCO}_3 + \text{heat} = \text{CaO} + \text{CO}_2$
- $\text{Quicklime} + \text{water} = \text{Hydrated Lime} + \text{heat}$
 $\text{CaO} + \text{H}_2\text{O} = \text{Ca(OH)}_2$

SUPPLY

Hydrated Lime is available in bulk, bulk bags, and 20 kg multi-walled paper bags from the Angaston works and customer service centres in regional areas. Paper bags are palletised and stretch wrapped.

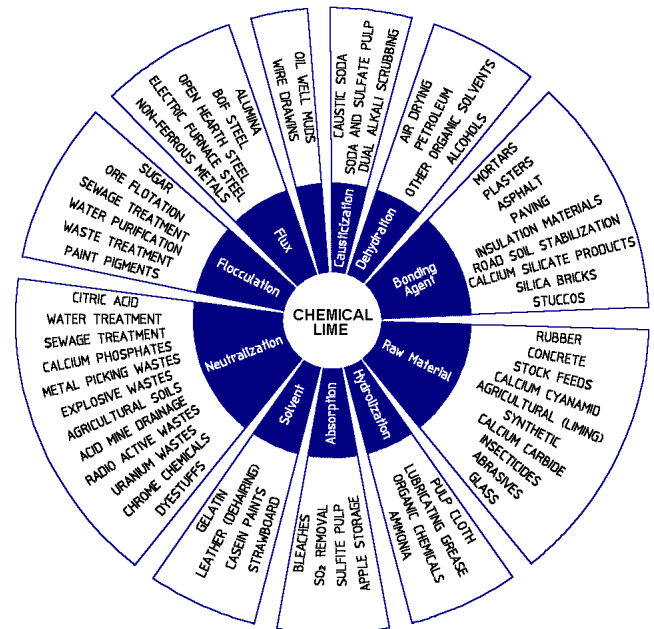
SPECIFICATION

Hydrated Lime is a high Calcium lime and exceeds the minimum specification given in AS 1672.1, Limes for building.

Hydrated Lime is manufactured under a third party certified manufacturing and supply quality assurance system to ISO 9001 (BSI Certification No FS 604665).

APPLICATIONS

Hydrated Lime is an extremely versatile material, suitable for a wide range of applications as detailed below.



TYPICAL PROPERTIES

Typical physical properties

Test	AS 1672.1	Typical values (%)
Fineness by wet sieving	≤5% retained 0.600 mm	<3% retained 0.075 mm <1% retained 0.300 mm
Specific gravity	-	2.2 – 2.3 t/m ³
Bulk density	-	400 – 600 kg/m ³

Typical chemical composition

Oxide	AS 1672.1	Typical values (%)
SiO ₂	-	2.1
Al ₂ O ₃	-	0.6
Fe ₂ O ₃	-	0.4
CaO	-	72.0
MgO	-	0.8
Loss on ignition	-	24.0
CO ₂	≤4%	2.5
Available lime Ca(OH) ₂	≥65%	90%



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HANDLING AND STORAGE

Transportation may be in bulk road or rail tankers, or in paper bags.

Manual handling of bag products without due care and attention may result in personal injury. Unless you have been trained in manual handling methods, it is suggested that you share the load with another person.

Hydrated Lime can be stored in concrete or steel silos, and bags for up to 12 months provided protection against ingress of moisture is observed throughout the storage of the product. To achieve optimum results, ideally use within 6 months of purchase.

Ingress of moisture can occur due to rain, liquid spillage (on or around the product) or a high humidity climate. Such exposure will degrade the performance of the product.

SAFETY INFORMATION

For safety information refer to the safety datasheet for Hydrated Lime.

CONTACT POINTS

For further information contact the Sales and Marketing department at:

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- Assess and control any risks associated with the information or product; and
- Obtain professional advice in relation to the use of the information or product.

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