

COAL/ HARD ROCK MINING

# RAPPASS

HIGH STRENGTH, IMPACT RESISTANT



## DESCRIPTION

Rappass C and G are blended cements that have been designed as rapid-strength and abrasion-resistant products to be used as either a dry or wet mix. Rappass C requires the addition of water to produce a flowing concrete consistency. Rappass G is applied by conventional wet (GW) or dry (GD) shotcrete processes.

## APPLICATIONS AND USES

- > Linings for ore passes
- > Outfalls
- > Spill ways
- > Crushers
- > Chutes
- > Equipment impact areas
- > High early strength
- > Excellent abrasion resistance
- > Excellent impact resistance
- > Minimum rebound, reduced waste
- > Non-caustic admixtures, safe to handle
- > De-dusted, improved environment
- > Chloride-free, non-corrosive to steel

## TECHNICAL DATA

### Pot Life

TYPICAL POT LIFE AT 20°C	
Rappass C/GW	2 hours
Rappass GD	20 minutes
Rappass CF	40 minutes

### Wet Density

Typical: 2200 Kg/m<sup>3</sup>

### Exotherm

Typical peak exotherm of a 100 x 100 x 50 mm sample. Sample mixed at 20°C.

Rappass: 48°C

### Compressive Strength

In accordance with BS 7861 - Part 1: 1996

TYPICAL PROPERTIES @ 20°C WATER: POWDER RATIO 0.12:1			
Rappass	GD	C/GW	CF
Age	UCS (MPa)		
2 hours	29		15
4 hours	41		26
1 day	55	61	62
7 days	67	71	72
28 days	90	87	87

## Abrasion Resistance

Typical Chaplin rotating disc abrasion test results (complying with BS 8204:1987 – Part 2). Independently tested at 28 days of cure. Results available on request.

Abrasion (mm)	
Rappass:	0.17mm
30 MPa structural concrete:	0.51mm

## Impact Resistance

Four 220 g cubes tumbled for 10 minutes at 17 rpm in a Y-shaped rotating drum mixer containing seven 130 g steel balls. Samples were cured for 28 days prior to testing.

Typical percentage weight loss:	
Rappass:	3.18 %
36 MPa Concrete:	6.39 %

## Flexural Strength

Typical Flexural strength. Independently tested to AS 1012.8.2 at 28 days of cure. Results available on request.

Rappass:	8 MPa
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## APPLICATION METHOD

### Preparation

Substrate should be de-dusted and pre-wetted. Mesh can be used if required.

### Mixing and Placing

Rappass C

- > Mixing should ideally be carried out mechanically using a free fall or forced action concrete mixer
- > Always add powder to water slowly and mix for minimum of 3 minutes.

WATER REQUIREMENTS	L PER BAG
20kg Bag	2.4L
1.2 T Bulka Bag	144L

Rappass G

- > Empty directly into the hopper of the application machine
- > Spray normally on vertical and overhead surfaces
- > Water and air should be adjusted at the nozzle to maintain build and application properties

## SAFETY INSTRUCTIONS AND LIMITATIONS

Do not use at temperatures below 5°C.

At the recommended consistency, the approximate yield is as follows:

PRODUCT REQUIREMENT	YIELD
1.2T of Rappass	611 L

## Coverage

THICKNESS (mm)	m <sup>2</sup> COVERAGE PER 1.2T
25 mm	24.4 m <sup>2</sup>
50 mm	12.2 m <sup>2</sup>
75 mm	8.1 m <sup>2</sup>
100 mm	6.1 m <sup>2</sup>

## PACKAGING AND TRANSPORTATION

Rappass is supplied in 20 kg bags or 1.2 T Bulk Bags. All 20 kg bags are packed on stretch-wrapped wooden pallets, 60 bags per pallet.

## STORAGE AND SHELF LIFE

Rappass has a shelf life of 12 months.

## STORAGE CONDITIONS

Material should be stored in original packing under dry warehouse conditions. High temperature and high humidity may reduce the shelf life.

## HEALTH AND SAFETY

For further information, see the relevant material safety data sheet on [www.minovaglobal.com.au](http://www.minovaglobal.com.au)

## TECHNICAL SUPPORT

We provide technical advisory service by a team of specialists in the field. The service includes on-site assistance and advice on evaluation trials and laboratory work.

## MANUFACTURER

### Minova Australia Pty Ltd

An ISO 9001:2015 Quality Management Certified Company



FS 603757

## ADDITIONAL INFORMATION

Minova Australia offers a comprehensive range of products, all of which have been developed after extensive research and testing on a global scale via our international network of operations. These products include:

- > Resin anchor systems.
- > High-yield grouts and foams
- > Monolithic chock systems
- > High-performance cable bolt grouts
- > Polyurethane resin systems
- > Sprayable coatings for ventilation control
- > Water stops grouts.
- > Ventilation formwork systems including: Meshblock and Tecmesh
- > Grout mixers and batchers, both air and hydraulically operated.
- > Contract Installations
- > Flexible membranes for strata support and waterproofing application

## CUSTOMER SERVICE

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