

Resource Guide

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Site Furniture Roocycle M - Radiant - Flame Zone Infrastructure



Large standard range • Custom work is welcomed

WHAT IS ROOCYCLE M?

Roocycle M does not burn at $<1200^{\circ}\text{C}$

Roocycle M a recycled composite material made from a mixture of magnesium oxide (MgO), non organic minerals, bonders and fibre mesh composites. Source of many ingredients is recycled closed cell and many come from the by-products of the steel industry.

Roocycle M is a proven material which has been re-developed into an extensively quality tested modern building board. Roocycle M is completely free of toxins, including formaldehyde, silica, asbestos, heavy metals, and organic solvents. It's non-toxic, naturally resistant to fire, water, and impact; and increases the R value in any panel application.

OTHER MATERIALS BURN OR MELT AT TEMPERATURE

Burns

Pine $<225^{\circ}\text{C}$
Spotted Gum $<350^{\circ}\text{C}$ or $33\text{kW}/\text{m}^2$ heat flux
FRP $<432^{\circ}\text{C}$
WPC $<349^{\circ}\text{C}$ 1 to $3\text{kW}/\text{m}^2$ heat flux

Melt

Aluminium alloy $<600^{\circ}\text{C}$
Steel $<1100^{\circ}\text{C}$ But weakened at $<550^{\circ}\text{C}$
Sandstone friable $>573^{\circ}\text{C}$
Glass flows $<700^{\circ}\text{C}$

BUSH FIRE ATTACK LEVEL - BAL

BAL Low
BAL 12.5
BAL 19
BAL 29
BAL 40
BAL F2 Flame Zone

ROOCYCLE M PASSES ALL THESE LEVELS!!

ROOCYCLE M DOES NOT BURN AT $<1200^{\circ}\text{C}$



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BENEFITS OF ROOCYCLE M

- Roocycle M has been tested to 1200°C with no combustion or flame out.
- Roocycle M does not absorb water and so superheated steam will not “blow out” the product.
- Roocycle M is totally fire resistant. It will not burn in a fire storm.
- Roocycle M is applicable in BAL 12.5 to 40 and FZ flame zone regulation areas and meets the AS 3959 requirements, when used to protect exposed timber framing eaves joists etc, under AS/ NZ 3837 materials.
- Roocycle M insulation properties help protect internal furnishing from flash burning from high external temperatures
- Roocycle M will not ignite from ember attacks. Ember attack is the largest single national contributor to home loss.
- Roocycle M is 8 to 10 times stronger than other products and insulates from intense heat and cold.
- Roocycle M does not break down in water so is ideal for flood prone areas
- Roocycle M is of no interest to insect pests and termites.
- Roocycle M exceeds BCA minimum requirements for airborne sound insulation for a wall between attached dwellings and meets the highest possible AAAC acoustic rating of 5 stars.
- Roocycle M During the manufacturing process, in carbonation, draws back 90% of the CO2 used to produce it and makes it a virtually carbon neutral product.
- Roocycle M satisfies AS 3959 and AS/NZS 3837 (BCA)
- Roocycle M - most standard paints will work well
- Roocycle M 10mm and 6mm have a special class 4 finish so can be painted directly
- Roocycle M The 20mm board does not have class 4 finish and may have slight pitting

WALKING TRACKS



61100
 Moodie Radiant Roocycle M
 Fire Resistant Products



61105
 Moodie Radiant Roocycle M
 Walking Track Steps Kit



61103
 Moodie Radiant Roocycle M
 Walking Track Steps Kit

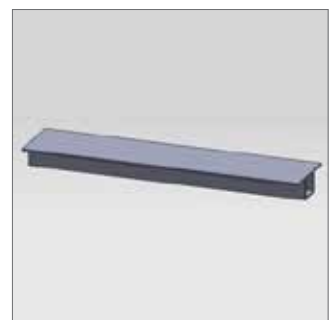
BOARDWALKS



62009
 Moodie Radiant Roocycle M
 Boardwalk Kits



62010
 Moodie Radiant Roocycle M
 Boardwalk Kits



62011
 Moodie Radiant Roocycle M
 Boardwalk Kits

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FURNITURE

OTHER USES:

- Viewing Platforms
- Decking
- Bird Hides
- Shelters



63500
Moodie Radiant Roocycle M
Fire Resistant Furniture

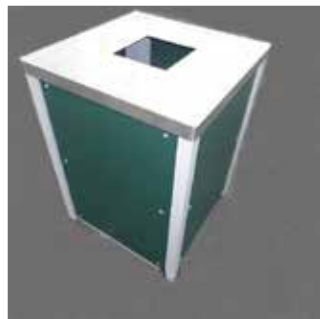


63510
Moodie Radiant Roocycle M
Fire Resistant Furniture



63520
Moodie Radiant Roocycle M
Fire Resistant Furniture

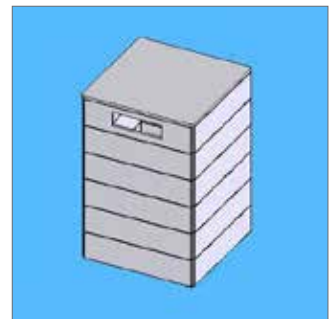
BINS



63015
Moodie Radiant Roocycle M
Fire Resistant Furniture



63020
Moodie Radiant Roocycle M
Fire Resistant Furniture



63030
Moodie Radiant Roocycle M
Fire Resistant Furniture

FENCING/BOLLARDS



61201
Moodie Radiant Roocycle M
Fire Resistant Fencing Kit



61210
Moodie Radiant Roocycle M
Fire Resistant Fencing Kit



61300
Moodie Radiant Roocycle M
Fire Resistant Fencing Kit

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ROOCYCLE M SPAN TEST

Panel No.	Deflection @ 1.8kN per mm	Deflection @ 2.7kN per mm	Load @ 1.0mm Deflection	Load @ 1.5mm Deflection	Load @ 2.25mm Deflection	Load Failure	Effective kN / Newtons
1	1.2	1.9	1.5	2.2	3.1	4.1	4.1
2	1.4	2.5	1.3	1.9	2.5	3.6	3.6

CERTIFICATION

CODEMARK CERTIFICATION (CMA-CM40007)

Roocycle M has been CodeMark Certified. (CMA-CM40007) Complies with the Building Code of Australia: BCA Volume 1 Section C for FRL (Timber Frame 60/60/60 Metal frame 90/90/90) Non Load bearing FRL -240/240. BCA Volume 2 Part 3.5.3.3, Fibre cement planks and CSIRO Certification - Report # FNK9471 CSIRO test on Roocycle M magnesium oxide glass-fibre mesh composite at 50-kW/m2 irradiance in accordance with AS/NZS 3837:1998 (replaces the old AS/NZS 1530 Part 3).

COMPLIES WITH THE BUILDING CODE OF AUSTRALIA

- BCA Volume 1 Section C for FRL (Timber Frame 60/60/60 Metal frame 90/90/90) Non Load bearing FRL -240/240.
- BCA Volume 2 Part 3.5.3.3, Fibre cement planks and weatherboard cladding.
- BCA Volume 2 Part 3.5.3.4, Fibre cement sheet wall cladding.
- BCA Volume 2 Part 3.5.3.5, Eaves and soffit linings.
- BCA Volume 2 Part 3.7.1, Fire separation for FRL to (Timber Frame 60/60/60 Metal frame 90/90/90) Non Load bearing FRL -240/240.
- BCA Volume 2 Part 3.7.4, Bushfire areas including all state variations to Part 3.7.4.0 and 3.7.4.1 as tested under AS 1530 part 8.1-2007 and AS 1530 part 8.2-2007.
- BCA Volume 2 Part 3.8.6, Sound insulation to Rw +Ctr 55.

ROOCYCLE M PASSES THE FOLLOWING BCA TESTS:

AS/NZS 3837:1998

Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter (Cone calorimeter test) - Walls & Ceilings (AS/NZS 3837 replaces AS/NZS 1530.3)

AS/NZS 1530.4

Methods for fire tests on building materials, components and structures, Part 4: Fire-resistance test of elements of construction covering fire resistance.

AS/NZS 1530.8

Methods for fire tests exclusively for materials and elements of construction in bushfire prone areas, namely: AS 1530.8.1 - Tests on elements of construction for buildings exposed to simulated bushfire attack; Part 8.1 - Radiant heat and small flaming source, which covers BAL12.5 to BAL40 and; AS 1530.8.2 - Tests on elements of construction for buildings exposed to simulated bushfire attack. Part 8.2: Large flaming sources, which covers BAL-FZ.FIRE RESISTANCE LEVEL (FRL)

Load Bearing Steel Frame: 90/90/90 Timber Frame: 60/60/60 Non Load Bearing: -/240/240

DISCLAIMER

The information and recommendations set forth herein are believed to be accurate as at 29 March 2013 and provided with permission of the manufacturer. However Moodie Outdoor Products P/L cannot predict or ensure the conditions that the product may be used and hence Moodie Outdoor Products P/L makes no warranty with respects to and disclaims all liability from reliance on this information unless design & construction quotations are accepted.