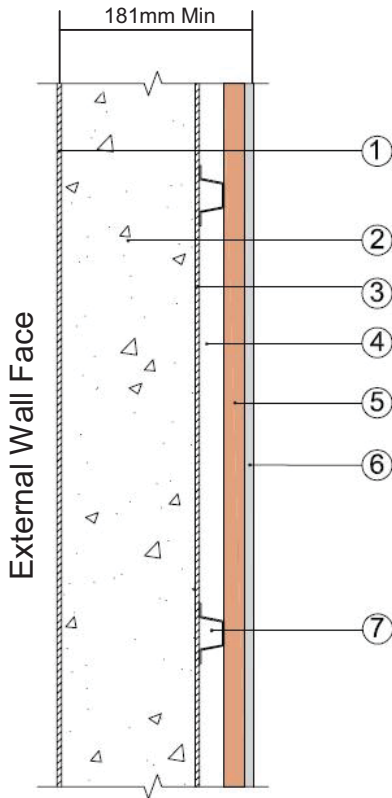


### Dintel & Kingspan Section J Solutions for Australian Climatic Zones

Wall Application Option	Climatic Zones							
	1	2	3	4	5	6	7	8
<b>Building Classes 3,5 - 9 [a-c]</b>								
Design "1a" Furring Channel Method [no dispensation for furring channel]				✔	✔	✔		
Design "1b" Furring Channel Method [no dispensation for furring channel]	✔	✔	✔				✔	
Design "1c" Furring Channel Method [no dispensation for furring channel]								✔
<b>BCA Requirement</b>	Rt2.8	Rt2.8	Rt2.8	Rt2.3	Rt2.3	Rt2.3	Rt2.8	Rt3.8
<b>Building Classes 1 &amp; 10 Refer to Basix Requirement</b>								
Design "2" Metal Stud Option [with dispensation below]	✔	✔	✔	✔	✔	✔	✔	Not Applicable
<b>BCA Requirement Using "Satisfy glazing energy index Option B of Table J2.4a"</b>	Rt1.4	Rt1.4	Rt1.4	Rt1.4	Rt1.4	Rt1.4	Rt1.4	
Design "3a" External Render Wall Board	✔	✔	✔	✔	✔	✔	✔	
Design "3b" External Render Wall Board								✔
<b>BCA Requirement</b>	Rt2.8	Rt2.8	Rt2.8	Rt2.3	Rt2.3	Rt2.3	Rt2.8	Rt3.8
Design "4" Double Batten Residential Option	Rt1.7	Rt1.7	Rt1.7	Rt1.9	Rt1.9	Rt1.9	Rt1.9	Rt1.9

**Please Note: All wall systems allow for R0.5 Dispensation for wall density not less than 220kg/m<sup>2</sup> where applicable.  
Other dispensations may be available discuss with your local Kingspan representative**





Building Class 3, 5-9  
Design "1a, 1b, 1c" Furring Channel Method No Dispensation for Furring Channel

### BCA Requirement

Climatic Zones 1,2,3 & 7 = Rt2.8  
Climatic Zones 4,5 & 6 = Rt2.3  
Climatic Zones 8 = Rt3.8

*Please Note: 200mm wall thickness also available, as well as variation in air spaces, Kooltherm thickness and internal wall finishes. Please contact Dintel or Kingspan for further details.*

- ① EXTERIOR POLYMER
- ② 110mm DINCEL WALL
- ③ INTERIOR POLYMER
- ④ 28mm AIR SPACE
- ⑤ Kingspan Kooltherm® K10 (30mm/40mm/60mm)
- ⑥ 13mm PLASTERBOARD LINING
- ⑦ 28mm FURRING CHANNEL

This document verifies the Total Thermal Performance R-value ( $R_T$ ) of the building profile detailed below. These R-values have been generated from computations using the internationally industry recognised scientific data of Robinson and Powlitch and in accordance with AS/NZS 4859.1:2002 - Amdt 1.

These performance computation R-values are calculated through the insulation path, ignoring thermal bridging, as required for determining compliance with the minimum requirements of the Building Code of Australia.

#### Application profile:

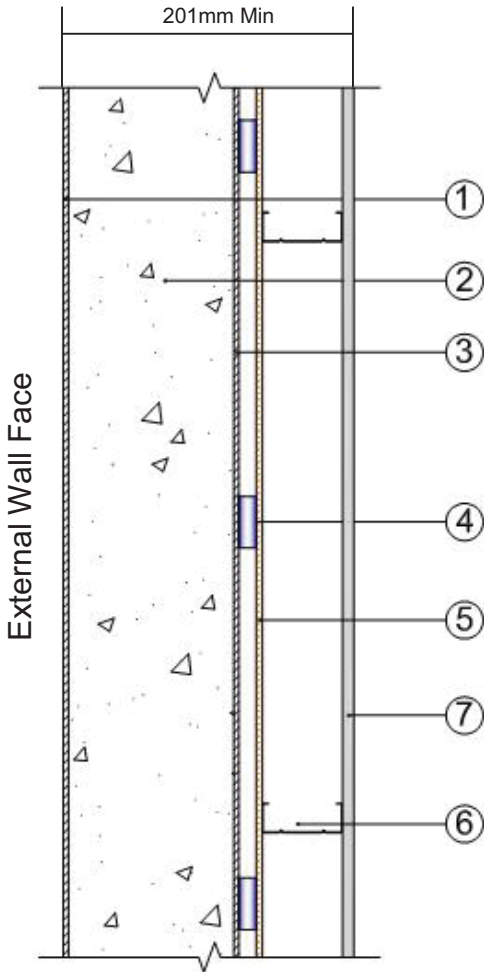
Dintel Concrete wall with Kingspan Kooltherm® K10FM and Plasterboard

Profile	Orientation	Emittance	R-value (In)	R-value (Out)
Air Film - 3.0 - 6.0m/s	Any Position	Any		
1. Exterior polymer skin				
2. 110mm Concrete wall (2300kg/m <sup>3</sup> )				
3. Interior polymer skin				
4. 28mm Air space	Vertical	0.90/0.14		
5. 30/40/60mm Kingspan Kooltherm® K10FM			30mm 2.3	2.4
6. 13mm Plasterboard lining			40mm 2.8	2.8
Internal air film	Vertical	High	60mm 3.9	3.9

These Total R-Values are calculated in accordance with AS/NZS 4859.1:2002 - Amdt 1, are indicative for the conditions specified and expressed in terms of m<sup>2</sup>.K/W.

Notes: Indoor temperature	24.0 °C - Summer	18.0 °C - Winter
Outdoor temperature	36.0 °C - Summer	12.0 °C - Winter
Temperature difference	12.0 K	-6.0 K

This Calculation is valid for the products specified above only.



Building Class 3, 5-9

**Design "2" Metal Stud Option With Furring Channel Dispensation**

**BCA Requirement**

Climatic Zones 1,2,3,4,5,6 & 7 = Rt1.4

Climatic Zones 8 = Not Applicable

- ① EXTERIOR POLYMER
- ② 110mm DINCEL WALL
- ③ INTERIOR POLYMER
- ④ SPACER BISCUIT
- ⑤ Kingspan AIR-CELL INSULATION
- ⑥ STUD WALL FRAMING 51mm TO 92mm
- ⑦ PLASTERBOARD LINING

*Please Note: 200mm wall thickness also available, as well as variation in air spaces, Stud Depth and internal wall finishes. Please contact Dintel or Kingspan for further details.*

**Application profile:**

Dintel Concrete wall with Kingspan AIR-CELL Retroschild® and 13mm Plasterboard

Profile	Orientation	Emittance	R-value (In)	R-value (Out)
Air Film - 3.0 - 6.0m/s	Any Position	Any	1.8	2.0
1. Exterior polymer skin				
2. 110mm Concrete wall (2300kg/m <sup>3</sup> )				
3. Interior polymer skin				
4. 20mm Reflective air space	Vertical	0.90/0.30		
5. Kingspan AIR-CELL Retroschild®				
6. 51mm - 92mm Reflective air space (64mm Av)	Vertical	0.03/0.90		
7. 13mm Plasterboard lining				
Internal air film	Vertical	High		

These Total R-Values are calculated in accordance with AS/NZS 4859.1:2002 - Amdt 1, are indicative for the conditions specified and expressed in terms of m<sup>2</sup>.K/W.

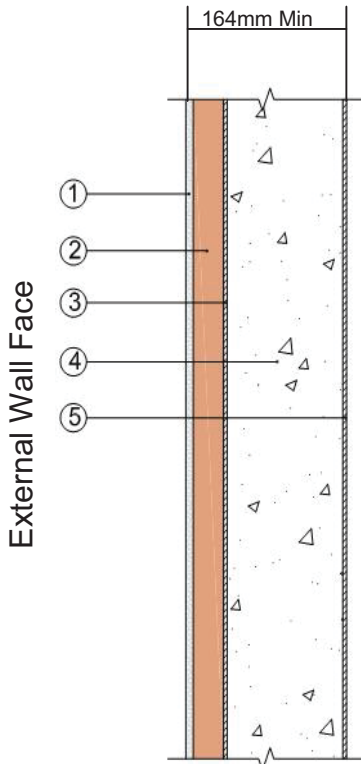
Notes: Indoor temperature	24.0 °C - Summer	18.0 °C - Winter
Outdoor temperature	36.0 °C - Summer	12.0 °C - Winter
Temperature difference	12.0 K	-6.0 K

This Calculation is valid for the products specified above only.



Building Class 3, 5-9

Design "3a, 3b" External Render Wall Board



### BCA Requirement

Climatic Zones 1,2,3 & 7 = Rt2.8

Climatic Zones 4,5 & 6 = Rt2.3

Climatic Zones 8 = Rt3.8

- ① Render/Cladding
- ② Kingspan Kooltherm® K5 EWB (40mm/50mm/70mm)
- ③ EXTERIOR POLYMER
- ④ 110mm DINCEL WALL
- ⑤ INTERIOR POLYMER

*Please Note: 200mm wall thickness also available, as well as variation in air spaces, Kooltherm thickness and internal wall finishes. Please contact Dintel or Kingspan for further details.*

This document verifies the Total Thermal Performance R-value ( $R_T$ ) of the building profile detailed below. These R-values have been generated from computations using the internationally industry recognised scientific data of Robinson and Powlitch and in accordance with AS/NZS 4859.1:2002 - Amdt 1.

These performance computation R-values are calculated through the insulation path, ignoring thermal bridging, as required for determining compliance with the minimum requirements of the Building Code of Australia.

**Application profile:**

Dintel Concrete wall with Rendered Kingspan Kooltherm® K5 EWB

Profile	Orientation	Emittance	R-value (In)	R-value (Out)
Air Film - 3.0 - 6.0m/s	Any Position	Any		
1. 4mm Polymer Render				
2. 50/70mm Kingspan Kooltherm® K5 EWB				
3. Exterior polymer skin				
4. 110mm concrete wall (2300kg/m <sup>3</sup> )				
5. Interior polymer skin				
Internal air film	Vertical	High	50mm 2.8	2.8
			70mm 3.8	3.8

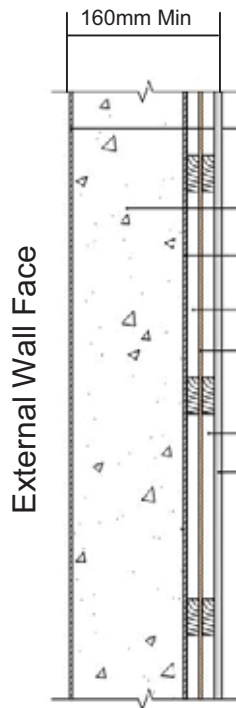
These Total R-Values are calculated in accordance with AS/NZS 4859.1:2002 - Amdt 1, are indicative for the conditions specified and expressed in terms of m<sup>2</sup>.K/W.

Notes: Indoor temperature	24.0 °C - Summer	18.0 °C - Winter
Outdoor temperature	36.0 °C - Summer	12.0 °C - Winter
Temperature difference	12.0 K	-6.0 K

This Calculation is valid for the products specified above only.



## Building Class 1 & 10 Residential Applications



### Design "4" Double Batten Residential Option Performance

#### BCA Requirement

Refer to Energy Rater Assessment

- ① EXTERIOR POLYMER
- ② 110mm DINCEL WALL
- ③ INTERIOR POLYMER
- ④ 20mm AIR SPACE/TIMBER BATTEN
- ⑤ Kingspan AIR-CELL Retrosheild®
- ⑥ 20mm AIR SPACE/TIMBER BATTEN
- ⑦ PLASTERBOARD LINING

*Please Note: 200mm wall thickness also available, as well as variation in air spaces, internal wall finishes. Please contact Dintel or Kingspan for further details.*

This document verifies the Total Thermal Performance R-value ( $R_T$ ) of the building profile detailed below. These R-values have been generated from computations using the internationally industry recognised scientific data of Robinson and Powlitch and in accordance with AS/NZS 4859.1:2002 - Amdt 1.

These performance computation R-values are calculated through the insulation path, ignoring thermal bridging, as required for determining compliance with the minimum requirements of the Building Code of Australia.

**Application profile:** Dintel Concrete wall with Kingspan AIR-CELL Retrosheild® and Plasterboard

Profile	Orientation	Emittance	R-value (In)	R-value (Out)
Air Film - 3.0 - 6.0m/s	Any Position	Any	1.7	1.9
1. Exterior polymer skin				
2. 110mm concrete wall (2300kg/m <sup>3</sup> )				
3. Interior polymer skin				
4. 20mm Reflective air space (Timber batten)	Vertical	0.90/0.30		
5. Kingspan AIR-CELL Retrosheild®				
6. 20mm Reflective air space (Timber batten)	Vertical	0.03/0.90		
7. 10mm Plasterboard lining				
Internal air film	Vertical	High		

These Total R-Values are calculated in accordance with AS/NZS 4859.1:2002 - Amdt 1, are indicative for the conditions specified and expressed in terms of m<sup>2</sup>.K/W.

Notes:	Indoor temperature	24.0 °C - Summer	18.0 °C - Winter
	Outdoor temperature	36.0 °C - Summer	12.0 °C - Winter
	Temperature difference	12.0 K	-6.0 K

This Calculation is valid for the products specified above only.