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| EWEA Took Donort No. | EC007000b 1 | Desc 1 of 0 |
|----------------------|-------------|-------------|
| EWFA Test Report No. | 56297900b.1 | Page 1 of 2 |

| Report Sponsor           | Issue Date                  |
|--------------------------|-----------------------------|
| Knauf Insulation Pty Ltd |                             |
| 44 Borthwick Avenue,     | 11 <sup>th</sup> July, 2018 |
| Murarrie. QLD 4712       | •                           |

## Test in accordance with AS/NZS 1530.1 - 1994

#### Objective

To determine the performance of the material samples as described in this report when subjected to the test conditions stated in the test standard referenced below.

| Product        | Knauf R2.7 Earthwool - Mineral Wool Insulation |
|----------------|--|
|                |  |
| Test Reference | Reference Date                                 |
| 56297900b      | 4 <sup>th</sup> July, 2018                     |
|                |  |
| Took Made and  | Complementary Chandands                        |

| Test Method                               | Supplementary Standards |
|---|-------------------------|
| AS 1530.1:1994                            | ISO 1182:2010           |
| Part 1: Combustibility test for materials | 130 1102.2010           |

## **Product Description**

The sponsor described the material as Knauf Earthwool, a mineral wool insulation to be used as wall insulation. The test sponsor declared the mineral wool as having an R value of 2.7. The test sponsor

declared the insulation to have a thickness of 90mm. The material had a measured density of 24 kg m³. EWFA personnel were not involved with the selection the test specimens, however, they prepared the specimens for testing. Before conducting these tests the test specimens were conditioned in a ventilated oven maintained at a temperature of 60±5 °C for at least 20 and no more than 24 hours. Prior to conducting these tests the samples were cooled to room temperature in a desiccator.



| TESTING AUTHORITY | Exova Warringtonfire Aus Pty L |  |  |  |
|-------------------|--------------------------------|--|--|--|
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| Phone             | 61 (0)3 9767 1000              | 61 (0)3 9767 1000  |  |  |
| ABN               | 81 050 241 524                 | 81 050 241 524   |  |  |
| Email / Home Page | www.exova.com                  | www.exova.com  |  |  |
| Authorisation     | Prepared By:                   | Reviewed By:   |  |  |
|                   | Chichadsun                     |  |  |  |
|                   | E. Richardson                  | A.Rosamilia  |  |  |

5.5℃

23.8℃

0 seconds

6.1 °C

7.6%

### **Test Results**

Mean furnace temperature rise

Mean specimen centre thermocouple temperature rise

Mean specimen surface thermocouple temperature rise

Mean duration of sustained flaming

Mean mass loss

#### **Observations**

Flaming for approximately 2-3 seconds was observed for 3 of the specimens soon after the specimens were placed in the 750 °C oven, however, this was not long enough to be considered sustained flaming.

#### Criteria of Combustibility

Clause 3.4 of AS1530.1:1994 defines a combustible material as one for which; the duration of sustained flaming, as determined by summing the individual durations of flaming of 5 seconds or longer for all of the samples and dividing by five, is greater than zero, or the arithmetic mean of the temperature rise of the furnace thermocouple exceeds 50 °C or the arithmetic mean of the specimen surface thermocouple temperature rise exceeds 50 °C.

#### Comments

The material is NOT DEEMED COMBUSTIBLE according to the test criteria specified in Clause 3.4 of AS1530.1:1994.

An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.

## Conditions/Validity

This report may only be reproduced in full. Extracts or abridgements shall not be published without permission of Exova Warringtonfire Aus Pty Ltd.

The tests were performed at Exova Warringtonfire Aus Pty Ltd. These tests have been conducted in accordance with the test standard referenced above and this report should be read in conjunction with that standard.

This test report does not provide an endorsement by Exova Warringtonfire Aus Pty Ltd of the performance of the actual products supplied. These test results relate only to the behaviour of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.



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| EWEAT ID IN          | E0007000 4  | D 4 (0      |
|----------------------|-------------|-------------|
| EWFA Test Report No. | 56297900a.1 | Page 1 of 2 |

| Report Sponsor                                   | Issue Date                 |
|--|----------------------------|
| Knauf Insulation Pty Ltd<br>44 Borthwick Avenue. | 8 <sup>th</sup> July, 2018 |
| Murarrie. QLD 4712                               | 8 July, 2016               |

## Test in accordance with AS/NZS 1530.1 - 1994

# Objective

To determine the performance of the material samples as described in this report when subjected to the test conditions stated in the test standard referenced below.

| Product        | Knauf R3.5 Earthwool - Mineral Wool Insulation |  |
|----------------|--|--|
|                |  |  |
| Test Reference | Reference Date                                 |  |
| 56297900a      | 2 <sup>nd</sup> July, 2018                     |  |
|                |  |  |

| Test Method                               | Supplementary Standards |
|---|-------------------------|
| AS 1530.1:1994                            | ISO 1182:2010           |
| Part 1: Combustibility test for materials | 130 1102.2010           |

## **Product Description**

The sponsor described the material as Knauf Earthwool, a mineral wool insulation to be used as ceiling insulation. The test sponsor declared the mineral wool as having an R value of 3.5. The test sponsor declared the insulation to have a thickness of 175mm. The material had a measured density of 9.5 kgm<sup>-3</sup>.

EWFA personnel were not involved with the selection the test specimens, however, they prepared the specimens for testing. Before conducting these tests the test specimens were conditioned in a ventilated oven maintained at a temperature of 60±5 °C for at least 20 and no more than 24 hours. Prior to conducting these tests the samples were cooled to room temperature in a desiccator.



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| Authorisation     | Prepared By:   | Reviewed By: |
|                   | Chichardson  |              |
|                   | E. Richardson  | A.Rosamilia  |

| Tes |  |  |
|-----|--|--|
|     |  |  |
|     |  |  |

Mean furnace temperature rise $6.4 \degree C$ Mean specimen centre thermocouple temperature rise $17.6 \degree C$ Mean specimen surface thermocouple temperature rise $8.1 \degree C$ Mean duration of sustained flaming0 secondsMean mass loss16.9%

## **Criteria of Combustibility**

Clause 3.4 of AS1530.1:1994 defines a combustible material as one for which; the duration of sustained flaming, as determined by summing the individual durations of flaming of 5 seconds or longer for all of the samples and dividing by five, is greater than zero, or

the arithmetic mean of the temperature rise of the furnace thermocouple exceeds 50 °C or the arithmetic mean of the specimen surface thermocouple temperature rise exceeds 50 °C.

#### Comments

The material is NOT DEEMED COMBUSTIBLE according to the test criteria specified in Clause 3.4 of AS1530.1:1994.

An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.

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