Certificate of Test

QUOTE No.: NC8476 **REPORT No.: FNC12679**

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

TRADENAME: DCT Vulcanwool 80 kg/m³

SPONSOR:
Dynamic Composite Technologies Pty Ltd
Unit 8, 171 - 175 Newton Road
WETHERILL PARK NSW 2164
AUSTRALIA

DESCRIPTION OF TEST SAMPLE:
The sponsor described the tested specimen as a volcanic mineral wool comprised of volcanic rock fibre, bakelite binder, mineral oil and silicone oil.

Nominal thickness: 50 mm
Nominal density: 80 kg/m³
Colour: dark beige

TEST PROCEDURE:
Five (5) samples were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1- 1994: Combustibility Test for Materials.

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.

RESULTS:
The following calculated results were obtained, refer also to Summary of measurements:

Arithmetic mean	$= \frac{\Sigma\, results}{5}$
Mean furnace thermocouple temperature rise **(°C)**	9.17
Mean specimen centre thermocouple temperature rise **(°C)**	108.37
Mean specimen surface thermocouple temperature rise **(°C)**	16.51
Mean duration of sustained flaming (s)	0
Mean mass loss (%)	4.66

DESIGNATION:
The material is **NOT** deemed combustible according to the test criteria specified in Clause 3.4 of AS 1530.1-1994.

These test results relate only to the behaviour of the test specimens 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.

DATE OF TEST: 21 December 2020

Issued on the 4th day of February 2021 without alterations or additions.

Faustin Molina
Testing Officer

Stephen Smith
Team Leader, Reaction to Fire & Façade Fire Laboratory

End of Report

NATA Accredited Laboratory
Number: 165
Corporate Site No 3625
Accredited for compliance with ISO/IEC 17025 - Testing.

CSIRO INFRASTRUCTURE TECHNOLOGIES

14 Julius Avenue, Riverside Corporate Park, North Ryde NSW 2113 AUSTRALIA
Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 5555 www.csiro.au

SUMMARY OF MEASUREMENTS AND OBSERVATIONS OF SAMPLES UNDER TEST C12679

Parameters	Symbol or expression	Unit symbol	Sample Number				
			1	2	3	4	5
Initial specimen mass	m_{si}	g	7.30	7.49	7.81	8.51	8.03
Final specimen mass	m_{sf}	g	6.95	7.09	7.50	8.13	7.65
Mass loss	$\Delta m = \frac{Msi - Msf}{Msi} \times 100$	%	4.79	5.34	3.97	4.47	4.73
Total duration of sustained flaming	Cumulative total of duration of flaming*	s	0	0	0	0	0
Initial furnace thermocouple temperature	T_{fi}	°C	750	749	747	747	748
Maximum furnace thermocouple temperature	T_{fm}	°C	771	774	770	770	775
Final furnace thermocouple temperature	T_{ff}	°C	767	764	760	758	765
Furnace thermocouple temperature rise	$\Delta Tf = Tfm - Tff$	°C	4	10	10	12	10
Maximum specimen centre thermocouple temperature	T_{cm}	°C	850	881	856	848	820
Final specimen centre thermocouple temperature	T_{cf}	°C	744	749	747	736	737
Specimen centre thermocouple temperature rise	$\Delta Tc = Tcm - Tcf$	°C	106	132	109	112	83
Maximum specimen surface thermocouple temperature	T_{cm}	°C	775	781	775	780	776
Final specimen surface thermocouple temperature	T_{sf}	°C	761	759	760	760	764
Specimen surface thermocouple temperature rise	$\Delta Ts = Tcm - Tsf$	°C	14	22	15	20	12
Test duration	-	min	30	30	30	30	30

- Any individual duration flaming less than 5 seconds was discarded

End of Test Certificate

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