

TEST REPORT

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ACCOUNT CHARGEABLE TO : WALER PRECISION MFG. SDN. BHD

PROJECT CODE : A0170
PROJECT NAME : TESTING OF RESYSTA SOLID PROFILE MATERIAL

SUBJECT : FIRE PROPAGATION TEST ON RESYSTA SOLID PROFILE MATERIAL

TEST STANDARD : BS 476: PART 6: 1989

JOB REF : ADM / 09 / 1366

DATE RECEIVED : 29-Apr-2019
DATE OF REPORT : 06-Jun-2019

TOTAL PAGES : 7 (including cover page)

REMARKS : *Test was conducted by TUV SUD PSB Pte Ltd
(Test Report No. S09MEC04439/2/YWA)*

Test Report No. S09MEC04439/2/YWA
dated 30 Apr 2019



PSB Singapore

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SUBJECT:

Fire Propagation test on on Resysta Solid Profile Material submitted by Admaterials Technologies Pte Ltd on 30 Apr 2019

TESTED FOR:

Waler Precision Mfg. Sdn. Bhd
No. 2 Jalan Canggih1
Taman Perindustrian Cemeriang
81800 Ulu Tiram
Johor, Malaysia

Attn: Mr Michael Tiongson

DATE OF TEST:

28 May 2019

PURPOSE OF TEST:

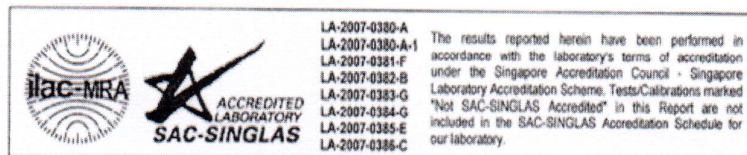
To determine the Index of Performance of the material when it is exposed to the conditions of the test specified in British Standard 476 : Part 6 : 1989 "Method of test for fire propagation for products".

The test was conducted at TÜV SÜD PSB fire test laboratory located at No. 10 Tuas Avenue 10, Singapore 639134.



Laboratory:
TÜV SÜD PSB Pte. Ltd.
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TUV®

The results reported herein have been performed in accordance with the laboratory's terms of accreditation under the Singapore Accreditation Council - Singapore Laboratory Accreditation Scheme. Tests/Calibrations marked "Not SAC-SINGLAS Accredited" in this Report are not included in the SAC-SINGLAS Accreditation Schedule for our laboratory.



DESCRIPTION OF SPECIMENS:

Six pieces of specimen, said to be Resysta (50mm thick x 1.2 - 1.5g/cm³) Solid Profile material comprising of Organic Fibre with Plastic, each of nominal size of 225mm x 225mm were submitted. Each piece of specimen comprised of 9 layers of the said material butt jointed (maximum 2 joints) and adhesive together in alternate orientation. Each layer comprised of specimen of width range of 52mm to 173mm. The Adhesive and Fire Retardant used were said to be PVC Glue and Antimony Trioxide respectively. The thickness of each layer and the overall bulk density of the specimen were found to be approximately 5.5mm and 1207kg/m³) respectively.

TEST PROCEDURE:

Three specimens, backed with calcium silicate board, were tested with the specimen indicated face exposed to the specified heating conditions, in an apparatus conforming to paragraph 5 and illustrated in Figures 1 to 3 of the Standard.

The calibration and test procedures were as defined in paragraphs 8 and 9, respectively, of the specification. The apparatus was calibrated prior to test and the actual calibration curve obtained is shown in Figure 1 of this report.

The mean temperature rise above ambient obtained from three specimens is also shown in Figure 1 (i.e. with the actual calibration curve). The mean temperature readings for the material and the calibration curve were obtained at the following intervals from the start of the test: at 1/2 minute intervals up to 3 minutes, at 1 minute intervals from 4 to 10 minutes, and at 2 minutes intervals from 12 to 20 minutes.

Two handwritten signatures in black ink, one appearing to be 'A' and the other 'K', positioned below the main text.

RESULTS OF TEST:

The following test results were obtained for each specimen tested:

Specimen	Sub-Indices			Index of Performance
	s ₁	s ₂	s ₃	S
A	1.7	5.5	2.0	9.3
B	1.4	4.1	1.3	6.8
C	2.5	5.1	1.3	9.0

CONCLUSION:

The test results obtained, as an average of the 3 samples tested are as follows:

Index of overall performance, I = 8.3
(Fire propagation index)

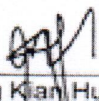
Sub-index, i₁ = 1.9

Sub-index, i₂ = 4.9


Sub-index, i₃ = 1.6

REMARKS:

The test results relate only to the behaviour of the test specimens of the product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.



Ong Kian Huat
Associate Engineer



Chan Lung Toa
Product Manager
(Fire Safety & Security Products)
Mechanical Centre

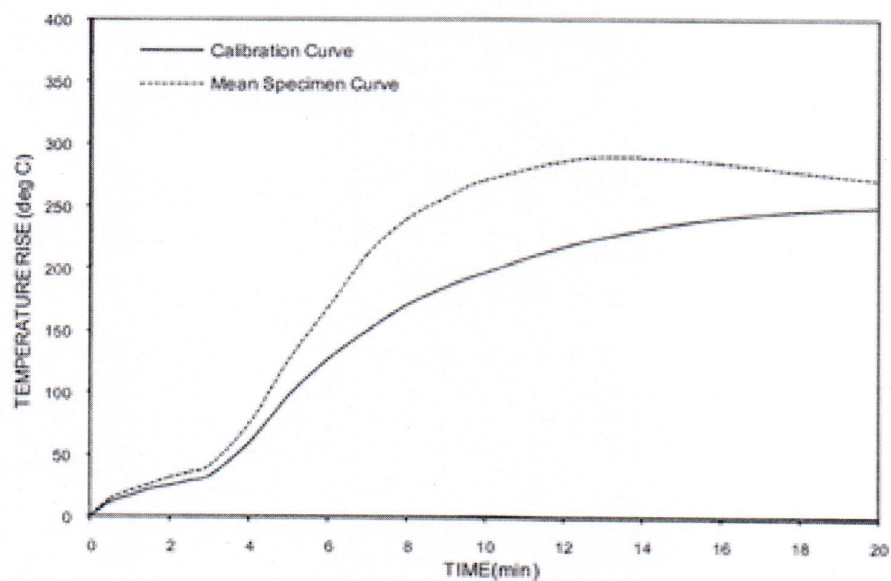
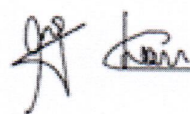


FIGURE 1 : COMPARISON OF MEAN SPECIMEN AND CALIBRATION CURVES



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