



Neuville, November 08th 2017

Our ref. : MW/DV
Study RL 2017/734

Modulyss N.V
Zevensterrestraat 21
B 9240 ZELE
BELGIUM

To the attention of Mrs Veert DEHAEMERS

Madam,

Please kindly find in the attached reports the results of orientating tests of reaction to fire radiant panel in accordance with **EN ISO 9239-1** made on your quality "**VELVET &**".

Compared to the classification criteria of the EN 13501-1 September 2007 + A1 (2013) are:

Critical heat flux : $\geq 3,0 \text{ kW/m}^2$: class D_{fi}

Critical heat flux : $\geq 4,5 \text{ kW/m}^2$: class C_{fi}

Critical heat flux : $\geq 8,0 \text{ kW/m}^2$: class B_{fi}

Smoke density: s1 smoke $\leq 750 \% \text{ X min}$

: s2 products that do not meet the criteria for class 1

Probable classification loose laid over fibre cement board: **$B_{fi} - s1$**

Regards,

For the SARL C.R.E.T
The Technical Director,
Marc WELCOMME

TEST REPORT N° RL 2017/734

DELIVERY : 08/11/2017

MATERIAL RECEIVED : 11/10/2017

ORIGIN : modulyss®
Zevensterrestraat 21
B 9240 ZELE
BELGIUM

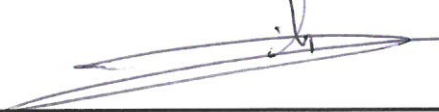
NAME OF QUALITY : **VELVET &**

TESTS TYPE : Orientation test : Reaction to fire tests for floorings according to NF EN ISO 9239-1 (February 2013)
Part 1: Determination of the burning behaviour using a radiant heat source

The Technical Director
Marc WELCOMME



Head of Tests
David VANDIERDONCK



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It contains **4** page(s) and **0** annex(s).

The results which have been obtained by means of the sample specified above, may not be generalised without justification of the representativeness of the samples.

ORIGIN OF THE SAMPLE TO CONSIDER:

Sample provided by the applicant of the test.

PRODUCT DESCRIPTION DETERMINED BY THE LABORATORY:

Tufted structured loop pile carpet tile of 50 cm x 50 cm (EN 1307 family product).

INFORMATIONS GIVEN BY THE CUSTOMER :

Composition of use-surface : 100% polyamide
Type of primary backing : non woven polyester
Type of backing : Bitumen
Total mass per unit area : 4713 g/m²
Total thickness : 7,6 / 8,8 mm
Total pile thickness: 3,8 / 5,0 mm
Colouring : 212

Flame retardant : yes

Description of test specimens:

*Substrate : fibres-cement board
Density (1800 ± 200) kg /m³
Dimensions 105 cm x 23 cm
Thickness (8 ± 2) mm

Installation : loose laid

Cleaning : none

Conditioning :

At least 14 days at (23 ± 2)°C and (50 ± 5) % relative humidity.

Eventual deviations from the test method:

None

Date of test:

03/11/2017

Duration of the test :

The radiation is maintained for 30 minutes.

RESULTS :**1) HEAT FLUX**

Specimen	Flame front distance (mm)			Heat flux (kW/m ²)			Duration of flaming (min/s)	Maximum flame front distance (mm)	Critical Heat flux CHF (kW/m ²)
	10 min	20 min	30 min	HF 10	HF 20	HF 30			
1 (L)*	220	250	250	8,7	-	-	13 min 10 s	250	8,1
1 (T)*	140	180	180	10,2	-	-	17 min 40 s	180	9,5

(L)* → Longitudinally direction

(T)* → Transversally direction

Observations :

Specimen is mounted in such a way at least one joint is situated 250 mm from the zero point.

Distance burnt (mm)	Time for each specimen to burn in minutes (min) and seconds (s)	
	1 (Longitudinally)	1 (Transversally)
50	4 min 30 s	4 min 20 s
100	6 min 20 s	6 min 50 s
150	7 min 20 s	11 min 10 s
200	9 min 50 s	
250	12 min 10 s	
300		
350		
400		
450		
500		
550		
600		
650		
700		
750		
800		
850		
900		
950		
1000		

2) SMOKE DENSITY

Specimen	Maximum light attenuation (%)	Smoke development (% X min)
1 (L)*	28,2	138,1
1 (T)*	10,4	41,1

(L)* → Longitudinally direction

(T)* → Transversally direction

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

End of report