



Neuville, November 08<sup>th</sup> 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

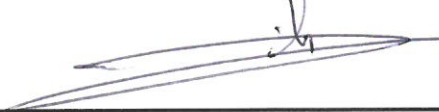
NAME OF QUALITY : **VELVET &**

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/m<sup>2</sup>  
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 /m<sup>3</sup>  
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 <sup>2</sup> )			Duration of flaming (min/s)	Maximum flame front distance (mm)	Critical Heat flux CHF (kW/m <sup>2</sup> )
	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\*\*\*