

REPORT Nr 3-233437

Applicant

nora-DE Qualitätswesen
Höhnerweg 2-4
69469
WEINHEIM

Test:

EN ISO 9239-1: (November 2010)

Material & Trade name	norament 992 grano, Color 4876, Batch-no. 3948010000	
Date of Test	25/07/13	
Mass per unit area	12.049	kg/m ²
Thickness	9	mm

Summary of the results:		
Average critical flux	7.79	kW/m ²
Average smoke Attention:	686.55	%*min
Classification acc. to EN 13501-1 (2010)	Cfl – s1	

Weinheim, den 26 July 2013

Gutfleisch

The present report consists of 8 pages

1. DESCRIPTION OF THE TEST METHOD

The test described in the document “EN ISO 9239-1 (November 2010) – Determination of the burning behaviour using a radiant heat source (ISO 9239-1: 2010)” was carried out.

Following derivations were made from the document “EN ISO 9239-1 (edition of November 2010) ” : only two tests on each product has been carried out instead of the standard three replicates.

2. IDENTIFICATION OF THE PRODUCT

Material & Trade name: norament 992 grano, Color 4876, Batch-no. 3948010000

Arrival of the sample : 10.06.134

Name of the supplier nora-DE Qualitätswesen
HÖHNERWEG 2-4
69469
WEINHEIM

Name of the manufacturer NORA SYSTEMS GMBH :
HÖHNERWEG 2-4
69469
WEINHEIM

Description of the material :

This description is based on information given by the sponsor.

The tested material consists of rubber. As these tests performed are of indicative nature only, no information on the tested products is included in this report.

Material Nr	Reference of the specimen	Substrate	Orientation
1	norament 992 grano, Color 4876, Batch-no. 3948010000	6 mm fiber cement board	lengthwise
2	norament 992 grano, Color 4876, Batch-no. 3948010000	6 mm fiber cement board	crosswise

3. RESULTS AND OBSERVATIONS

Date of test: 25/07/13

a) Test results:

Flame spread as in function of time

Specimen number	1	2		
Flame spread	Time when reached (s)			
50	0	0		
100	0	0		
150	0	0		
200	0	0		
250	0	0		
300	0	0		
350	0	0		
400	0	0		
450	0	0		
500	0	0		
550	0	0		
600	0	0		
650	0	0		
700	0	0		
750	0	0		

(1) not reached

b) Other Data

Specimen number	1	2			Averages
Surface orientation	lengthwise	crosswise			Specimen
Time (min)	Flame spread (mm)				1 -2
Flame spread after 10 min	220	220			
Flame spread after 20 min	270	240			
Flame spread after 30 min	310	240			
Final maximum flame spread distance (mm)	310	240			275
Self extinction (s)	1800	1800			
Test stopped at (s)	1815	1812			
Critical heat flux CHF (kW/m ²)	7.07	8.52			7.79
Heat flux at 30min (kW/m ²)	7.07	8.52			7.79
Maximum smoke attenuation (%.min)	770.10	599.77			686.55

c) Observations

Specimen number	1	2		
Transitory flaming (yes/no)	No	No		
Melting (yes/no)	No	No		
Blistering (yes/no)	No	No		
Glowing combustion after flame-out	No	No		
Duration (s)	0	0		
Location (distance from reference line) (mm)	0	0		
Penetration of the flame through the substrate (yes/no)	No	No		

Calibration results

Last Calibration date : 15:03 15/07/13

Calibration valid until : Last Calibration date + 1 month

Heat flux distribution onto the calibration board

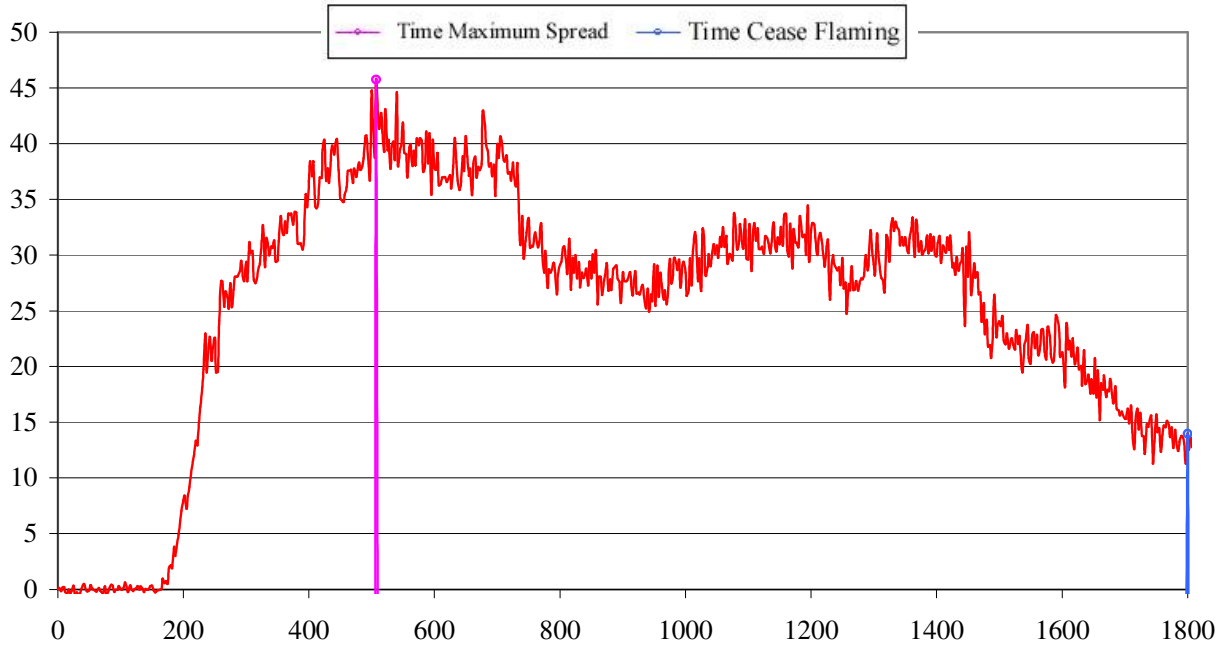
Distance to zero point of specimen (mm)	Measured heat flux (kW/m ²)	Required heat flux (kW/m ²)
110	11.072	10,9 ± 0,4
210	9.188	9,2 ± 0,4
310	7.07	7,1 ± 0,4
410	5.132	5,1 ± 0,2
510	3.628	3,5 ± 0,2
610	2.604	2,5 ± 0,2
710	2.014	1,8 ± 0,2
810	1.41	1,4 ± 0,2
910	1.198	1,1 ± 0,2

Black body temperature of the radiant panel : 400.00 °C

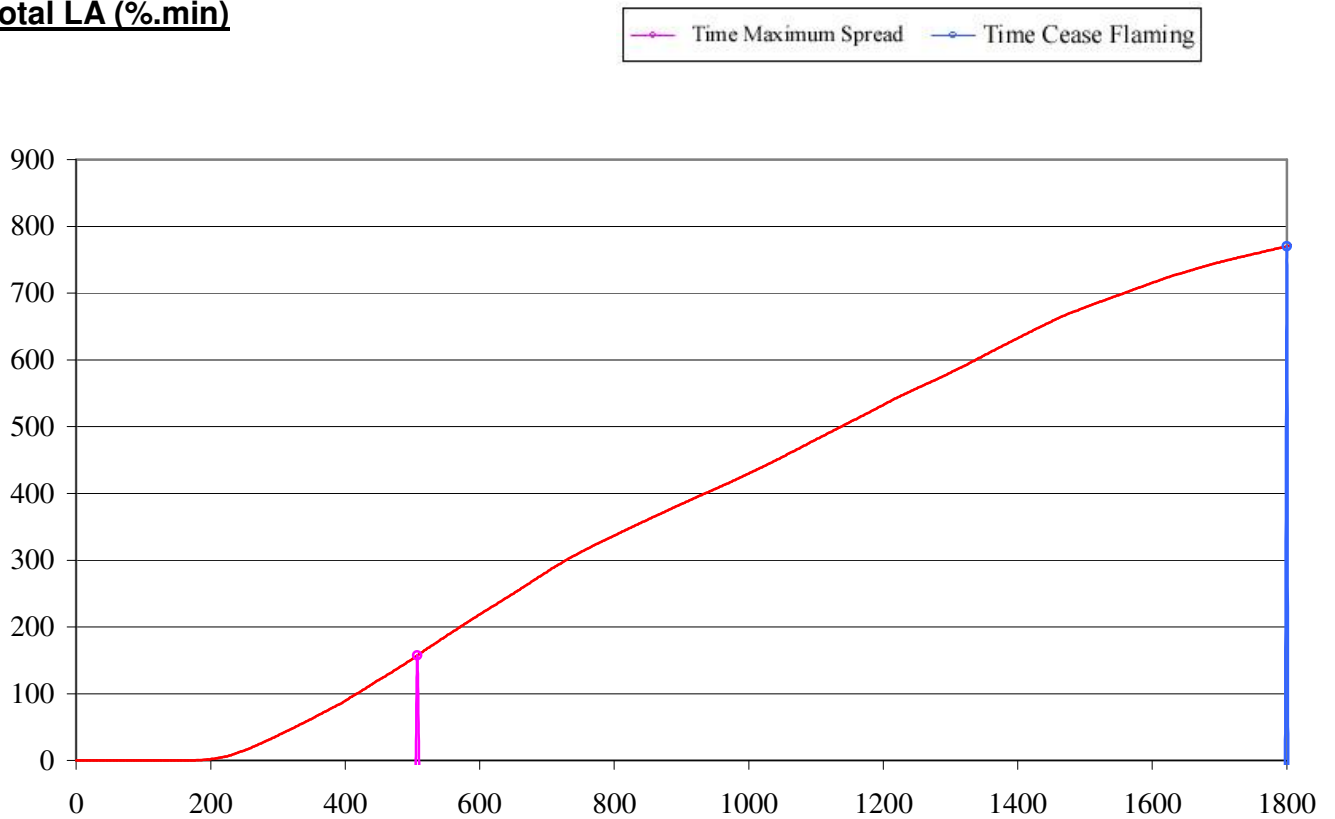
Temperature of the chamber : 155.90 °C

Graphs of smoke production for specimen Nr 1

Smoke attenuation (%)

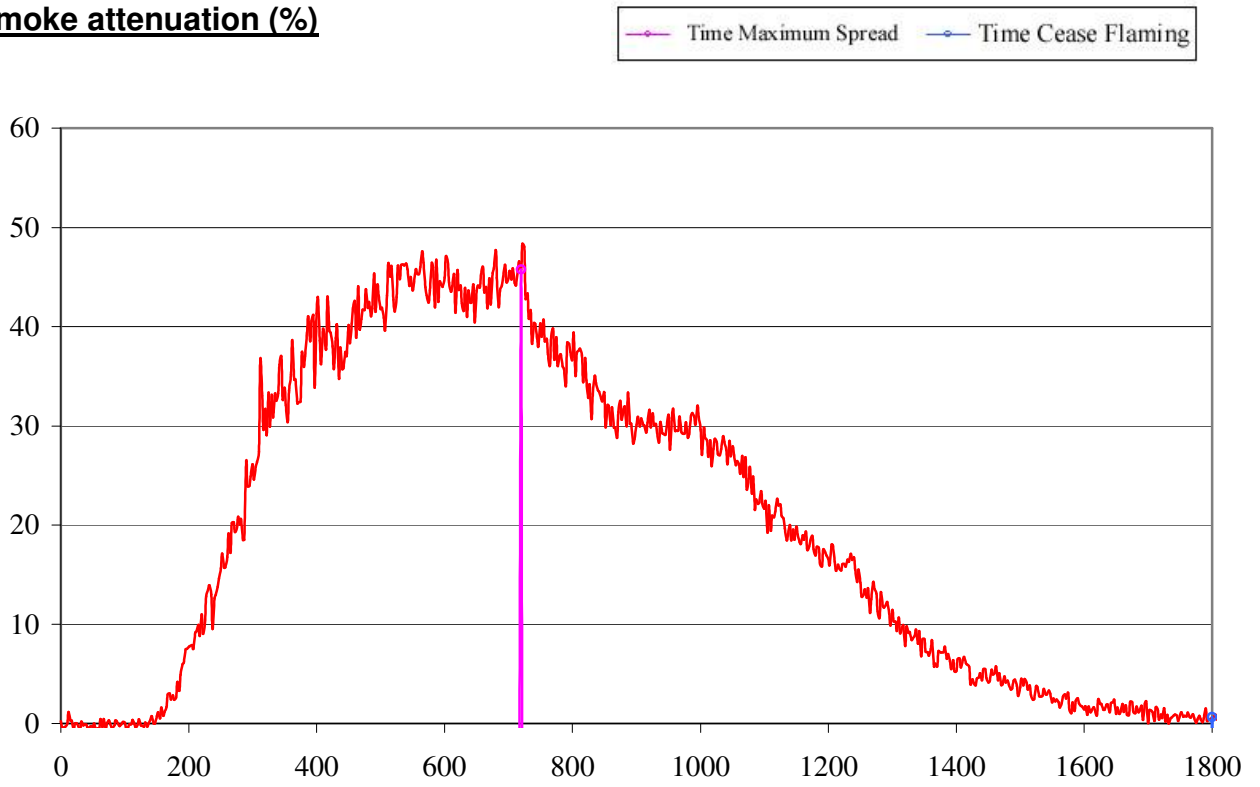


Total LA (%.min)



Graph of smoke attenuation for specimen Nr 2

Smoke attenuation (%)



Total LA (%.min)

