

Mechanische Eigenschaften

	Einheit	Wert	Prüfmethode
Zugfestigkeit, Type 1, 0.125	N/mm ²	72	ASTM D638
Zug-Elastizitäts-Modul, Type 1, 0.125	N/mm ²	2220	ASTM D638
Dehnung, Type 1, 0.125	%	6	ASTM D638
Biegefestigkeit	N/mm ²	115	ASTM D790
Biege-Elastizitäts-Modul	N/mm ²	2507	ASTM D790
IZOD-Schlagzähigkeit	J/m	614	ASTM D256
IZOD-Kerbschlagzähigkeit	J/m	106	ASTM D256

Thermische Eigenschaften

	Einheit	Wert	Prüfmethode
Formbeständigkeit in der Wärme, bei 4,6 bar	°C		ASTM D648
Formbeständigkeit in der Wärme, bei 18,2 bar	°C	153	ASTM D648
Glasübergangstemperatur T _g	°C	186	DSC (SSYS)

Spezielle Eigenschaften

	Einheit	Wert	
Spezifische Dichte	(g/cm ³)	1.34	ASTM D792
Oxygen Index	%	49	ASTM D2863
Vertikaler Brenntest (Test a (60s), passes at)	Sek	2	FAR 25.853
OSU Peak Heat Release (5 minute test)	kW/m ²	36	FAR 25.853
OSU Total Heat Release (2 minute test)	kW x min/m ²	16	FAR 25.853

Verfügbarkeit

Fortus 400mc
Fortus 900mc

Farbe Material

elfenbein



CERTIFICATE

Bunsen Burner Test

acc. to FAR/JAR/CS 25, App. F, Part I

Test Report No.

FL-122/0808

Client: Airbus Laupheim

Designation: Stratasy FDM

RFT-F-25-969

Specimen Description: New Mat

Thick. of spec.: 2,0 mm

Conditioning: 24 hr, 21°C, 50% rel. humidity

(AITM 2.0002A) Vertical - 60s Ignition Time				(AITM 2.0002B) Vertical - 12s Ignition Time			
Sample No.	Burn Length [mm]	Flame Time [s]	Drip Flame Time [s]	Sample No.	Burn Length [mm]	Flame Time [s]	Drip Flame Time [s]
1				1	29	0	0
2				2	28	0	0
3				3	26	0	0
Mean				Mean	28	0	0
Limit	152	15	3	Limit	203	15	5

(AITM 2.0003A) Horizontal - 15s Ignition Time		(AITM 2.0003B) Horizontal - 15s Ignition Time	
Sample No.	Burn Rate [mm/min]	Sample No.	Burn Rate [mm/min]
1		1	
2		2	
3		3	
Mean		Mean	
Limit	2.5inch (64mm) / min	Limit	4.0inch (102mm) / min

(AITM 2.0004) 45° - 30s Ignition Time				(AITM 2.0005) 60° - 30s Ignition Time			
Sample No.	Flame Time [s]	After Glow [s]	Flame Penetration	Sample No.	Burn Length [mm]	Flame Time [s]	Drip Flame Time [s]
1			<input type="checkbox"/>	1			
2			<input type="checkbox"/>	2			
3			<input type="checkbox"/>	3			
Mean			---	Mean			
Limit	15	10	None	Limit	76	30	3

Remarks:

Test passed:

Yes / No

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The Material Test Center-Fire Performance is part of DLR-Design Organisation since 22.12.2005. The DLR-Design Organisation has been approved under the authority of the German Aviation Authority (LBA) Certificate No.: LBA.NJA.005 These test results are in correspondence with the FAR/JAR/CS-25-Requirements!

Date: 15.08.2008

Checked:

Approved:



CERTIFICATE

Measurement of Heat Release Rate and the Heat Release

acc. to JAR/FAR/CS 25, App. F, Part IV & AITM 2.0006

Test Report No.

HR-178/0808

Client: Airbus Laupheim

Designation: Stratasys FDM
RFT-F-25-969

Specimen Description: New Mat

Thick. of spec.: 2,0 mm

Conditioning: 24 hr, 21°C, 50% rel. humidity

Calibr.-factor: 0,33 kW/mV * m²

Air distribution: 40 l/sec

Baseline voltage: 23,7 mV

Heat flux density: 3,5 W/cm²

No.	Weight [g]	HRR*		HR**
		[kW / m ²]	at [s]	[kW * min / m ²]
1	51,1	47,48	279	35,18
2	51,5	44,18	84	37,57
3	51,2	40,08	293	28,83
	Mean	43,91	---	33,86
	Limit	65	---	65

*less than 65 kW/m² for a peak heat release rate
**less than 65 kW*min/m², for the 2-minute total heat release (for the average of triplicate sample measurements)

Remarks:

Test passed:

Yes / No

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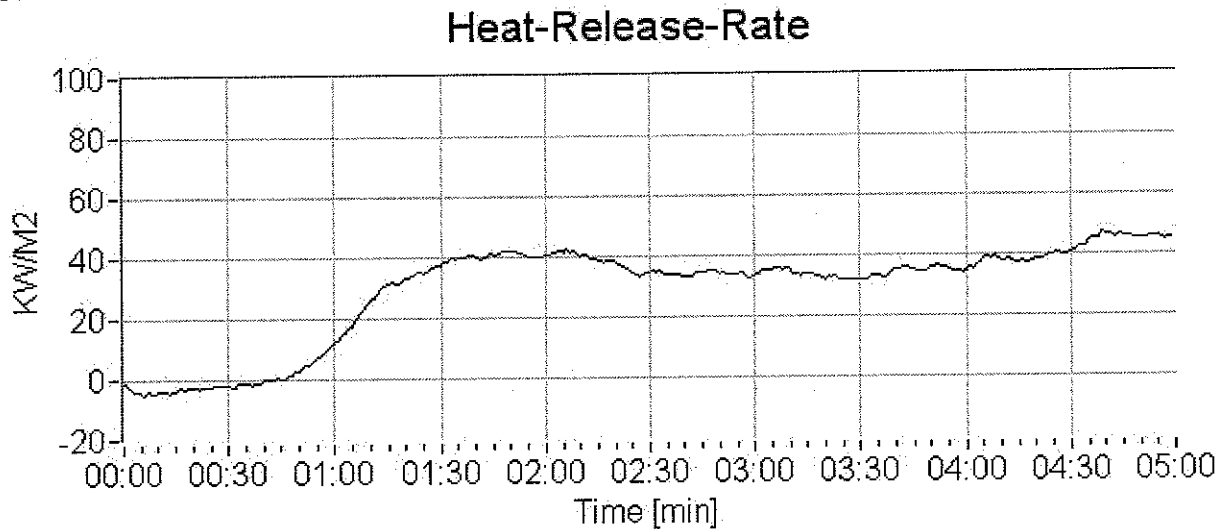
Date:
14.08.2008

Checked:

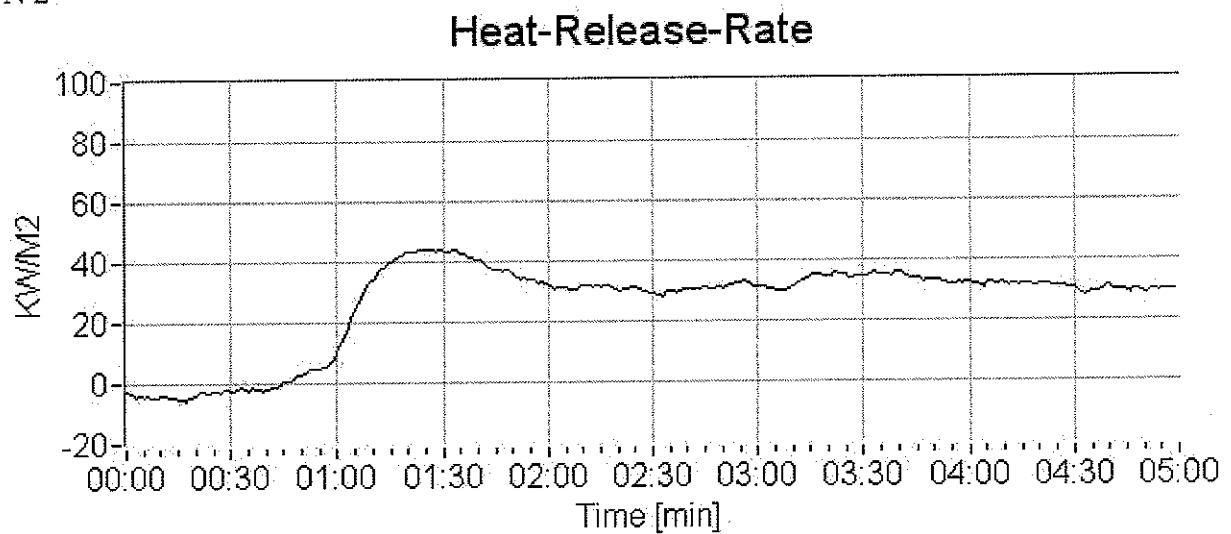
Approved:

Certificate: HR-178-0808
14.08.2008
Designation: RFT-F-969
Client: Airbus Laupheim

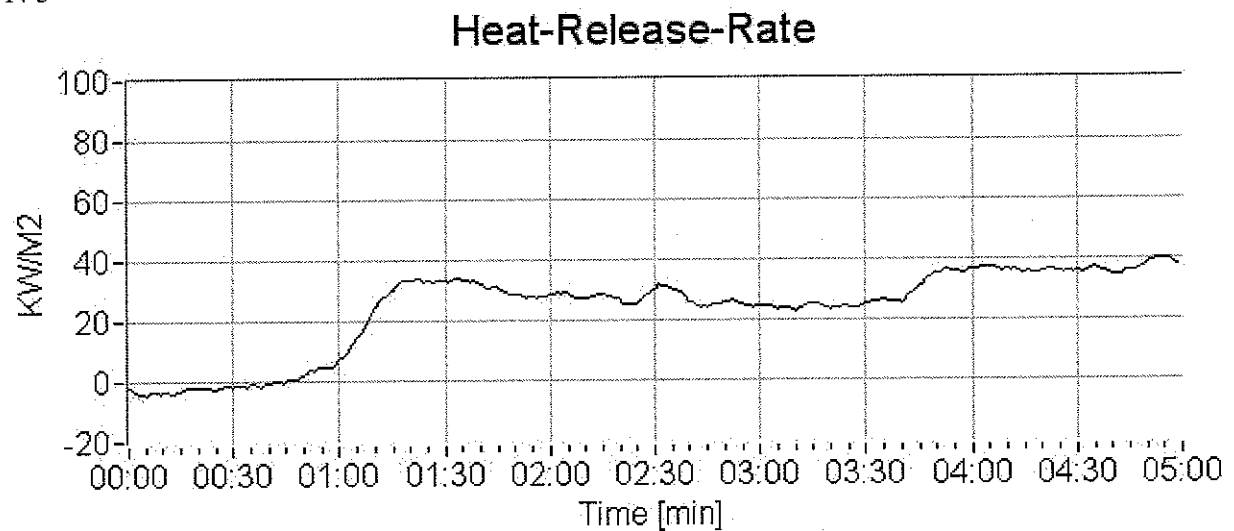
RUN 1



RUN 2



RUN 3





CERTIFICATE

Determination of the Toxic Components on Combustion Products

acc. to ABD 0031 & AIM 3.0005

Test Report No.

ABD-177/0808

Client: Airbus Laupheim

Designation: Stratasys FDM

RFT-F-25-969

Specimen Description: New Mat

Thick. of spec.: 2,0 mm

Conditioning: 24 hr, 21°C, 50% rel. humidity

Gas (all values in ppm)	Limit	Flaming Mode (F)			Non-Flaming Mode (NF)		
		No.	Result	Mean	No.	Result	Mean
HCN Hydrogen Cyanide	150	1	0		1	0	
		2	0	0	2	0	0
		3			3		
CO Carbon Monoxide	1000	1	50		1	0	
		2	50	50	2	0	0
		3			3		
NO _x Nitrous Fumes	100	1	0,5		1	0	
		2	0,5	0,5	2	0	0
		3			3		
SO ₂ + H ₂ S Sulf.Dioxide + Hydr. Sulphide	100	1	0		1	0	
		2	0	0	2	0	0
		3			3		
HF Hydrogen Fluoride	100	1	0		1	0	
		2	0	0	2	0	0
		3			3		
HCl Hydrogen Chloride	150	1	0		1	0	
		2	0	0	2	0	0
		3			3		

Remarks:

Specimen tested in conjunction with Smoke Density-Test No.: SD-179/0808

Test passed:

Yes / No

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These test results are in correspondence with the FAR/JAR/CS-25-Requirements!

Date:

18.08.2008

Checked:

Approved:



CERTIFICATE

Measurement of Smoke Density
acc. to JAR/FAR/CS 25, App. F, Part V & AITM 2.0007

Test Report No.
SD-179/0808

Client: Airbus Laupheim

Designation: StratasyS FDM
RFT-F-25-969

Specimen Description: New Mat

Thick. of spec.: 2,0 mm

Conditioning: 24 hr, 21°C, 50% rel. humidity

Limit (D_s after 4 min)	Flaming Mode (F)			Non-Flaming Mode		
	No.	Result	Mean	No.	Result	Mean
max. 200	1	5		1	1	
	2	6	5	2	1	1
	3	4		3	1	

D_s = specific optical smoke density (after 4 min)

Remarks:

Specimen tested in conjunction with Toxicity - Test No.: ABD-177/0808

Test passed:

Yes / No

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