



<b>TEST REPORT according to ISO/IEC 17025</b> No. AVS: 2006115 Date: 2022-02-15 File: 2006115_V_EN.DOCX	 Deutsche Akkreditierungsstelle D-PL-14121-04-00
<b>Testing laboratory</b> BASF SE RBU Performance Materials Europe Materials and Parts Testing PMD/EX-H201 67056 Ludwigshafen Deutschland	<b>Contact at laboratory</b> Name: Daniel Francke Phone: +49 621 60 46167 E-Mail: <a href="mailto:daniel.francke@basf.com">daniel.francke@basf.com</a> Position: Team lead  Signature: 
<b>Client</b> Company: BASF 3D Printing Solutions GmbH Speyerer Strasse 4 69115 Heidelberg Germany	<b>Contact at client</b> Name: Matthias Fischer Phone: +49 (0) 160 9677 3440 E-Mail: <a href="mailto:matthias.fischer@basf-3dps.com">matthias.fischer@basf-3dps.com</a>
<b>Test specimen / Material</b> A2020-2248 PC-ABS (FR) black	<b>Test methods (Standard and publication date)</b> - IEC 60695-11-10:2014 vertical (equivalent to UL94:2020)
Order received on: 2021-01-04 Specimen received on: 2021-01-04 Tests conducted on: 2021-01-12	This report contains: Pages: 3 Diagrams: 0 Tables: 2 Photos: 0 Attachments: 2

**Decision rule**

EN45545-2:2016, R26 (EL 10): HL1-3 (V0)

**Result**

Test specimen of nominal thickness 1.5 and 3 mm were subjected to vertical flammability testing according to DIN EN 60695-11-10:2014 (equivalent to UL94:2018). The test result is V-0. This result provides evidence for conformity with EN45545-2:2016, R26 for HL1, HL2 and HL3.

**Note**

This report replaces a previous report dated 2021-11-15 due to editorial corrections.

The test results of this report are only valid for the specimens tested and only describe the results achieved by the application of the particular tests methods to these specimens. They do not imply any guarantee nor any agreement on a contractual quality or a suitability of the product for a specific purpose. In view of the many factors that may affect processing and application of the product, the test results do not relieve processor from carrying out own investigations and tests. The report does not imply any recommendation for a product. The report shall only be reproduced and passed on in full.

The testing laboratory is accredited by DAkkS Deutsche Akkreditierungsstelle GmbH (German Accreditation Body) according to ISO 17025 for mechanical, thermal, physical-chemical and flammability tests. The accreditation is valid only for the scope of accreditation listed in the Annex to the accreditation certificate (Registration No. D-PL-14121-04-00).



We create chemistry

**TEST REPORT**

BASF SE, PMD/EX - H202, D-67056 Ludwigshafen  
 Tester: Waldemar Niedballa Phone: 0621-60-41868

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Order no.: 0 -E079/GK SAP: 40357410  
 Customer: Knopf Giulia / Pitz Andreas  
 Product: A2020-2248\_PC-ABS-FR\_1,5MM BLACK

Date of order: 2021-01-04  
 AVS no.: 2006115  
 PDF no.: 173

Preparation: 3D Printing  
 Conditioning:  
 Comments:

**\*\*\* Flame testing \*\*\***  
**Flammability V acc. to UL 94 : 2020**

**Information about test procedure and test specimens**

M 0 0321			Measurements & observations									Classification	
Dimensions of test specimens 127 * 12,7 * d mm³			1st flame application, 10 s				2nd flame application, 10 s				Total Afterflame time t1 + t2 [s]		
			After- flame time t1 [s]	Cotton indicator ignited?	Burning up to holding clamp?	Obs- er- vations	After- flame time t2 [s]	Cotton indicator ignited?	Burning up to holding clamp?	Obs- er- vations			Afterflame & Afterglow time t2 + t3 [s]
Requirements			≤ 10	no	no	---	≤ 10	no	no	---	≤ 30	≤ 50	= V-0
			≤ 30	no	no	---	≤ 30	no	no	---	≤ 60	≤ 250	= V-1
			≤ 30	yes	no	---	≤ 30	yes	no	---	≤ 60	≤ 250	= V-2
Pre-conditioning	Spec no.	Thickn [mm]	Abbrev.: A=dripping parts, K=edge-burning, T=dripping parts, R=rolls up										V-0
Conditioning chamber (2d / 23°C / 50%)	1	1.53	1	No	No		2	No	No		2		
	2	1.53	2	No	No		2	No	No		2		
	3	1.51	1	No	No		2	No	No		2		
	4	1.51	1	No	No		3	No	No		3		
	5	1.50	1	No	No		1	No	No		1	16	
			First test 2021-01-12 13:46:42 - 2021-01-12 13:54:02										
Drying oven (7d / 70°C)	1	1.54	1	No	No		3	No	No		3		
	2	1.55	1	No	No		2	No	No		2		
	3	1.51	1	No	No		5	No	No		5		
	4	1.59	1	No	No		5	No	No		5		
	5	1.55	1	No	No		2	No	No		2	22	
			First test 2021-01-12 13:57:54 - 2021-01-12 14:06:26										
Conditioning chamber (2d / 23°C / 50%)	1												
	2												
	3												
	4												
	5												
			Repeated test -										
Drying oven (7d / 70°C)	1												
	2												
	3												
	4												
	5												
			Repeated test -										
											<b>V-0 @ 1.5 mm</b>		

Date of report: 2021-01-12

Signature: W. Niedballa



We create chemistry

**TEST REPORT**

BASF SE, PMD/EX - H202, D-67056 Ludwigshafen

Page 1 of 1

Tester: Ilona Klee

Phone: 0621-60-41868

Order no.: 0 -E079/GK

SAP: 40357410

Date of order: 08.12.2020

Customer: Knopf Giulia / Pitz Andreas

AVS no.: 2006115

PDF no.: 450

Product: A2020-2248\_PC-ABS-FR\_3,0MM BLACK

Preparation: 3D Printing

Conditioning:

Comments:

**\*\*\* Flame testing \*\*\***

**Flammability V acc. to UL 94 : 2020**

**Information about test procedure and test specimens**

M 0 0324			Measurements & observations										Classification
Dimensions of test specimens 127 * 12,7 * d mm³			1st flame application, 10 s				2nd flame application, 10 s				Total Afterflame time t1 + t2 [s]		
			After- flame time t1 [s]	Cotton indicator ignited?	Burning up to holding clamp?	Observations	After- flame time t2 [s]	Cotton indicator ignited?	Burning up to holding clamp?	Observations		Afterflame & Afterglow time t2 + t3 [s]	
Requirements			≤ 10	no	no	---	≤ 10	no	no	---	≤ 30	≤ 50	= V-0
			≤ 30	no	no	---	≤ 30	no	no	---	≤ 60	≤ 250	= V-1
			≤ 30	yes	no	---	≤ 30	yes	no	---	≤ 60	≤ 250	= V-2
Pre-conditioning	Spec no.	Thickn [mm]	Abbrev.: A=dripping parts, K=edge-burning, T=dripping parts, R=rolls up										V-0
Conditioning chamber (2d / 23°C / 50%)	1	3.10	1	No	No		9	No	No		9		
	2	3.05	1	No	No		2	No	No		2		
	3	3.12	1	No	No		10	No	No		10		
	4	3.10	1	No	No		4	No	No		4		
	5	3.12	1	No	No		8	No	No		8	38	
			First test 15.12.2020 12:56 - 15.12.2020 13:03										
Drying oven (7d / 70°C)	1	3.09	1	No	No		3	No	No		3		
	2	3.10	1	No	No		4	No	No		4		
	3	3.12	1	No	No		5	No	No		5		
	4	3.14	1	No	No		3	No	No		3		
	5	3.08	1	No	No		6	No	No		6	26	
			First test 16.12.2020 11:25 - 16.12.2020 11:33										
Conditioning chamber (2d / 23°C / 50%)	1												
	2												
	3												
	4												
	5												
			Repeated test -										
Drying oven (7d / 70°C)	1												
	2												
	3												
	4												
	5												
			Repeated test -										
												V-0 @ 3.0 mm	

*Ilona Klee*

Date of report: 2020-12-16

Signature: \_\_\_\_\_