

Resistance to heat, fire and tracking

Date of issue (initials): 2018-02-28 (BOV)

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Report No.: 18-HG-0045.H03

Customer: Spotbox Elektrotechnik AG Kantonsstrasse 91a 6234 Triengen +41 41 935 07 07 www.spotbox.ch	Project / Application: Glow-wire test according to IEC/EN 60695-2-11 Test severity: 850 °C	Tested by: Vincent Boillat / 20. - 28.02.2018 Test engineer 
	Specimen 1: Speedbox Compact Art. Nr. 115 401 Specimen 2: Feuerbox Klein Art. Nr. 115 390	Approved by: Oliver Zimmermann Manager Lab. Household 

Component								Glow wire								Ball pressure			Needle flame			Proof tracking			
Pos	Customer Ref. Nr.	Object / part No. / Designation	Manufacturer / trade mark	Type / Material	Position	Colour	Thick. [mm]	Temp [°C]	t _e [s]	t _i [s]	h [mm]	Mat w/d	Ign. tis.	R A	R B	Temp [°C]	d [mm]	R	t _b [s]	Ign. tis.	R	Volt. [V]	# Drops	R	
1.a	115 401	Speedbox Compact	Spotbox Elektrotechnik AG	Polyamid	top side	White	1.4	850	36	1	20	N	N	P	-	-	-	-	-	-	-	-	-	-	-
1.b	115 401	Speedbox Compact	Spotbox Elektrotechnik AG	Polyamid	openings	White	2.3	850	3	1	10	N	N	P	-	-	-	-	-	-	-	-	-	-	-
1.c	115 401	Speedbox Compact	Spotbox Elektrotechnik AG	Polyamid	bottom	White	1.6	850	31	1	20	N	N	P	-	-	-	-	-	-	-	-	-	-	-
2.a	115 390	Feuerbox Klein	Spotbox Elektrotechnik AG	Polyamid	side	White / Grey	3.0	850	32	1	30	N	N	P	-	-	-	-	-	-	-	-	-	-	-
2.b	115 390	Feuerbox Klein	Spotbox Elektrotechnik AG	Polyamid	openings	White / Grey	1.4	850	33	1	20	Y	N	P	-	-	-	-	-	-	-	-	-	-	-
2.c	115 390	Feuerbox Klein	Spotbox Elektrotechnik AG	Polyamid	top side	White / Grey	1.6	850	33	1	60	Y	N	P	-	-	-	-	-	-	-	-	-	-	-

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Pos	Customer Ref. Nr.	Object / part No. / Designation	Manufacturer / trade mark	Type / Material	Position	Colour	Thick. [mm]	Temp [°C]	t _e [s]	t _i [s]	h [mm]	Mat w/d	Ign. tis.	R A	R B	Temp [°C]	d [mm]	R	t _b [s]	Ign. tis.	R	Volt. [V]	# Drops	R	
2.d	115 390	Feuerbox Klein	Spotbox Elektrotechnik AG	Fermacell Gipsfaserplatte 10 mm	side / bottom	Grey	10	850	0	0	-	N	N	P	-	-	-	-	-	-	-	-	-	-	-

Test equipment used

Glow-wire-test apparatus PTL <input checked="" type="checkbox"/> 14.6621.07	Heating cabinet Heraeus <input type="checkbox"/> 40.113.700, <input type="checkbox"/> 40.179.100	Ball pressure weight PTL, 2040g <input type="checkbox"/> 99.6621.60, <input type="checkbox"/> 99.6621.61, <input type="checkbox"/> 99.6621.62, <input type="checkbox"/> M 0015, <input type="checkbox"/> M 0016, <input type="checkbox"/> M 0017, <input type="checkbox"/> M 0018	Needle burner <input type="checkbox"/>	Tracking-test barrel SEV PTL <input type="checkbox"/> 40.369.200
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Test	Standard	Procedure / parameters	Conditions to pass test (Result R: P = Pass , F = Fail , (...) not relevant in this application)
Glow wire	IEC 60695-2-11:2014	Glow wire 30 s applied	No ignition of tissue (Ign. tis.) and t _e ≤ 60 s (severity A) or (t _e - t _i) ≤ 2 s (severity B); t _i : ignition; t _e : end of burning Flame height h and if (nearly) all material has been withdrawn (Mat. w/d) only for information
Ball pressure	IEC 60695-10-2:2014	Ball of 5 mm with 20 N, 60 min	Indentation diameter d ≤ 2 mm
Needle flame	IEC 60695-11-5:2004	Flame of 12 mm, 45° angle, 10 mm distance, for 30 s	No ignition of tissue and burning time after removal of flame t _b < 30 s (15 s for PCBs)
Proof tracking	IEC 60112:2003+A1:2009	Using test solution A	50 or 100 drops without breakdown or persistent flame

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Type List

Position	Art. Nr.	Designation	Size	Material	Equal to	Differences
1	115 390	Feuerbox Klein	180 x 160 x 110 mm	Polyamid / Fermacell Gipsfaserplatte 10mm	Tested specimen	-
2	115 300	Feuerbox Gross	210 x 160 x 110 mm	Polyamid / Fermacell Gipsfaserplatte 10mm	Same as position 1	Different size
3	115 330	Feuerbox Maxi	320 x 150 x 110 mm	Polyamid / Fermacell Gipsfaserplatte 10mm	Same as position 1	Different size
4	115 400	Speedbox	370 x 265 x 75 mm	Polyamid	Same as position 5	Different size
5	115 401	Speedbox Compact	215 x 215 x 100 mm	Polyamid	Tested specimen	-

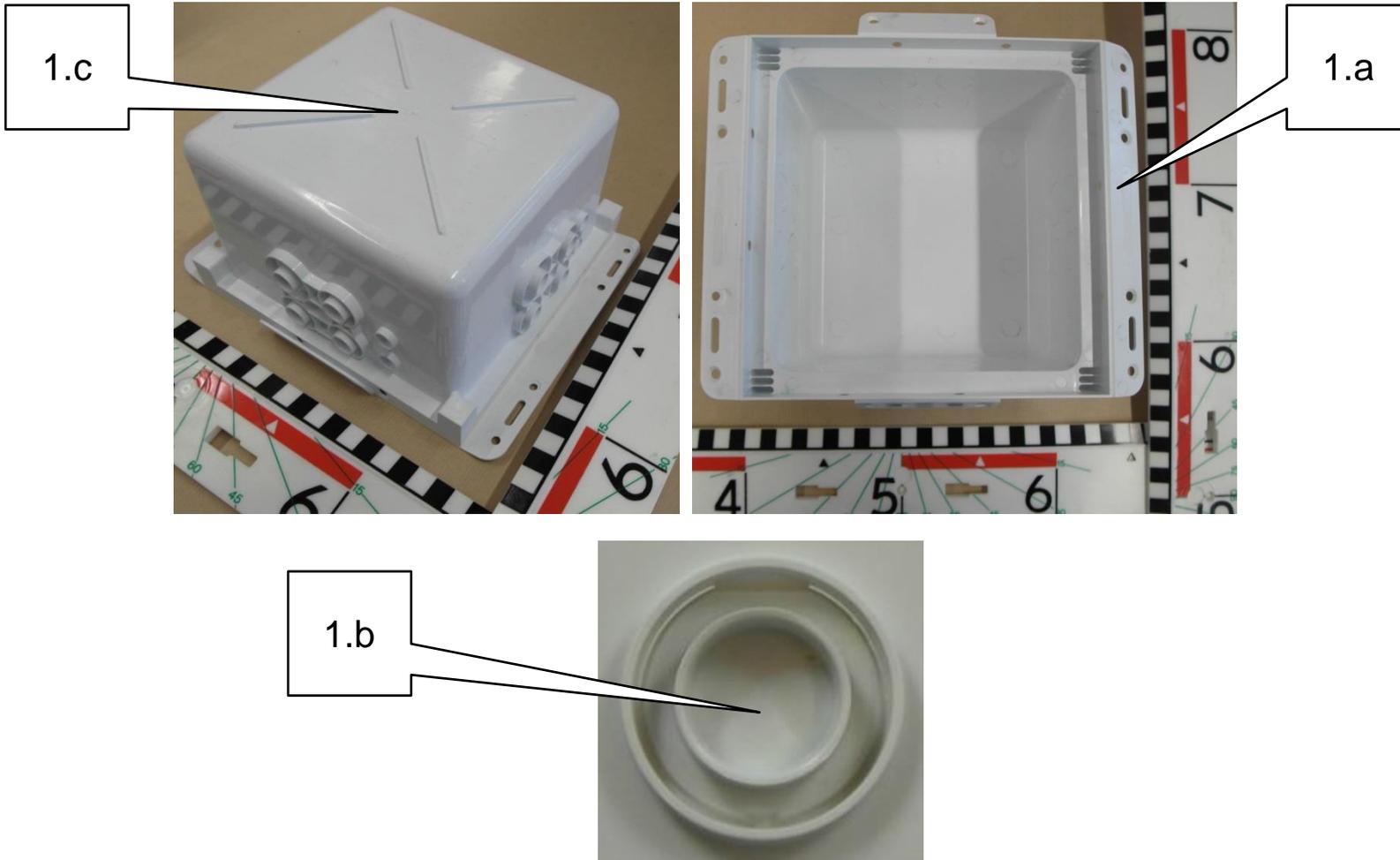
Notes:

Prior to test, the specimens have been conditioned during 24 hours at 15.6 °C / 53.2% rH

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Specimen 1, new condition



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Specimen 2, new condition

