

Test report | Blackout characteristics

1. Introduction

This test report presents the results of light transmission measurements conducted on various flexible materials by Filcoflex B.V.. These materials are used in a range of applications, including flexible connections, gaskets, inflatable seals, and cover jackets. These tests were performed on 9 May 2025.

The test setup was configured in accordance with the ISB profile, meaning that all surfaces were finished in black to minimize glare and reflections. The distance between the light source and the lux meter was kept constant throughout the test, as was the alignment of the light source with the lux meter sensor. During the tests, illuminance was measured using a Voltcraft LX10 lux meter.

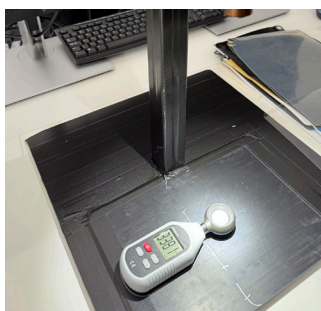
The light source used was an LED lamp that was continuously connected to AC power to ensure that battery charge levels did not affect the measurements. The reference tests confirm the consistency of the light source.

A POMC fixing plate with a central hole was used to press the flexible material against the detector lens of the lux meter. By placing it over the lens in this way, external light is prevented from influencing the test results.

2. Reference tests

The reference tests were conducted to determine the intensity (in lux) of the light source and to assess other potential influences on the measurements. The results show the output of the light source, as well as the contribution of ambient light and ceiling lighting in the room. Please note that the distance and alignment between the light source and the lux meter were identical to those used during the material tests. Figure 1 shows the setup as well as some of the test results.

Test number	Light source	Lux	Picture ^[1]
Test 1	Room ambience - no LED	148	1441
Test 2	Room ambience - no LED	120	1442
Test 3	Room ambience + LED	39570	1443
Test 4	Room ambience + LED	34130	1444
Test 5	Room ambience + LED	34140	14480
Test 6	Office ceiling light + LED	34100	14481



Test setup
Fig. 1 - Test setup and results



1442 - Test 2



1444 - Test 4

^[1] These numbers refer to the pictures taken during the tests. These images are stored in the Filcoflex B.V. database and are available upon request.

3. Poly Urethane

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
PU-UF1	Room ambience + LED	31660	1446	
PU-UF3	Room ambience + LED	30900	1447	
PUAS10	Room ambience + LED	30770	1448	
PUMAG08	Room ambience + LED	0	1461	
PUW1	Room ambience + LED	46	1453	
PUB05	Room ambience + LED	0	1617	
PUTEXW1	Room ambience + LED	337	1452	



1447 - PU-UF3



1461 - PU MAG 08



1453 - PUW1

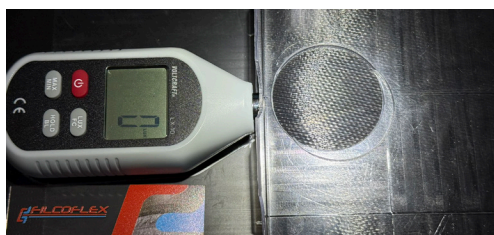


1617 - PUB05

Fig. 2 - Poly Urethane test results

4. PTFE

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
PTFE 2120 AS FDA	Room ambience + LED	0	1450	
PTFE 2130 Blue FDA	Room ambience + LED	97	1470	
PTFE 310	Room ambience + LED	23650	1473	
PTFE TEXcoat	Room ambience + LED	0	1469	
PTFE TEXcoat thin grey	Room ambience + LED	0	1471	



1450 - PTFE 2120 AS FDA



1470 - PTFE 2120 Blue FDA

Fig. 3 - PTFE test results

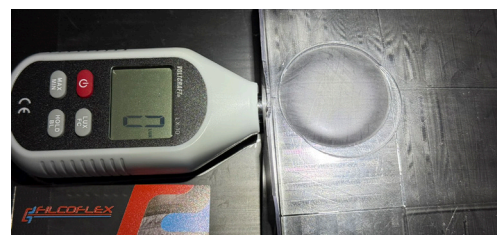
^[2] The blackout rating is explained on page 5 of this document

5. Rubber

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
EPDM White 1mm	Room ambience + LED	24	1457	
EPDM White 2mm	Room ambience + LED	0	1458	
EPDM White 3mm	Room ambience + LED	0	1460	
EPDM AS 1mm	Room ambience + LED	0	1475	
EPDM AS 2mm	Room ambience + LED	0	1454	
EPDM AS 3mm	Room ambience + LED	0	1455	



1460 - EPDM White 3mm

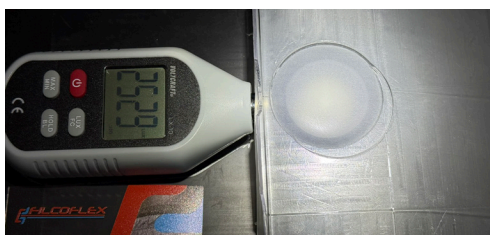


1455 - EPDM AS 3mm

Fig. 4 - Rubber test results

6. Silicone

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
Silicone Translucent 1mm	Room ambience + LED	25290	1465	
Silicone Translucent 2mm	Room ambience + LED	24470	1466	
Silicone Translucent 3mm	Room ambience + LED	24230	1467	
PKSR silicone knitted mesh	Room ambience + LED	17810	1468	



1465 - Silicone translucent 1mm

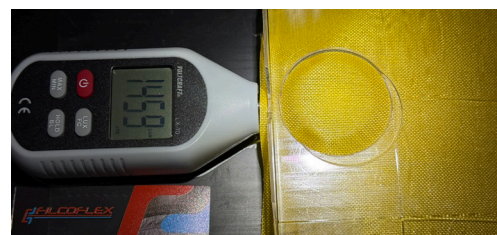
Fig. 5 - Silicone test results

7. Coated textiles

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
AWSR	Room ambience + LED	0	1462	
Indicado yellow	Room ambience + LED	14590	1451	



1462 - AWSR



1451 - Indicado yellow

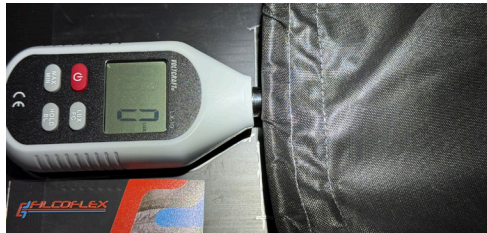
Fig. 6 - Coated textiles test results

8. Air permeable fabrics

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
PNV7506 AS FG	Room ambience + LED	5952	1476	

9. BFM fittings

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
BFM Polypropylene black	Room ambience + LED	0	1463	
BFM Kevlar yellow	Room ambience + LED	700	1464	



1463 - BFM Polypropylene black

1464 - BFM Kevlar yellow

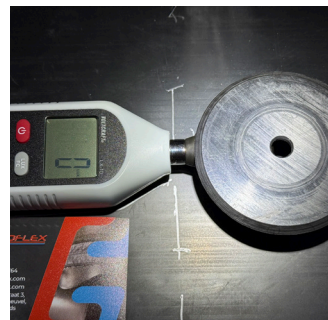
Fig. 7 - BFM fittings test results

10. Plastics

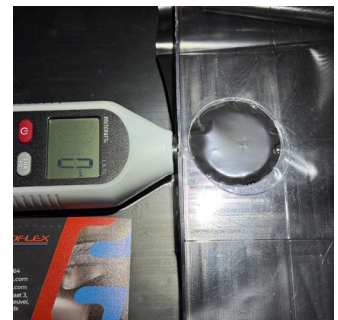
Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
POM C White 5mm	Room ambience + LED	12620	1474	
POM C White 12mm	Room ambience + LED	6056	1482	
POM C Black 5mm	Room ambience + LED	0	1478	
PE Film Black packaging	Room ambience + LED	0	1477	



1474 - POM C White 5mm



1478 - POM C Black 5mm



1477 - PE film black packaging

Fig. 8 - Plastics test result

11. Others

Material	Light source	Lux	Picture ^[1]	Blackout rating ^[2]
Printer paper 80g/m	Room ambience + LED	6031	1479	

12. Blackout rating

The blackout rating, as shown in the test result tables, is based on the reference tests. As shown in the table below, the amount of lux measured by the lux meter is divided into a five-step rating scale. These ratings can also be found in some product- or material-specific documents.

	0 lux
	1 - 500 lux
	501 - 10.000 lux
	10.001 - 30.000 lux
	> 30.001 lux

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 Date: 06/07/2026



Disclaimer

These tests were performed on 9 May 2025, and the information herein is believed to be accurate as of the date of testing. If any of the above-mentioned materials change in composition, this information may no longer be valid.

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