TEST LABORATORY

The test laboratory is accredited in compliance with DIN EN ISO/IEC 17025 by the Deutsche Akkreditierungsstelle GmbH. The accreditation is also valid for products of Regulation (EU) 2016/425. Test methods not included in the scope of accreditation are marked by a *.

ilac-MRA DAkkS Deutsche Akkreditierungsstelle D-PL-11239-01-00

SÄCHSISCHES TEXTIL FORSCHUNGS INSTITUT e.V.

Authorized for the testing of heat and flame-resistant protective clothing for car racers according to FIA 8856-2000 standard by the Fédération Internationale de l'Automobile (FIA) Paris.

TEST REPORT

Order number STFI: **20192673**

Report date: 5 November 2019
Person responsible: Reinhardt

Orderer:
Englisch-Dekor HandelsGmbH & Co. KG
Manuela Schopper
Scheydgasse 29
1210 Wien
ÖSTERREICH

Test order:

Date: 30 October 2019
Order received: 4 November 2019
Material received: 4 November 2019

Chairman of the Board
Prof. Dr.-Ing. Hilmar Fuchs

Sächsisches Textilforschungsinstitut e.V.
Annaberger Str. 240 - 09125 Chemnitz, Germany

Head of the Test Laboratory
Dipl.-Ing. Marian Hierhammer

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Material to analyse:

signed by client	code for order processing
Sample : E 3019 / 150	P2673_19_1
Sample : E 3025 / 150	P2673_19_2
Sample : E 3042 / 150	P2673_19_3

The sampling was supplied by the client. The test department is not informed about the sampling procedure.

Analysis content:

(1) Measurement and assessment of the dim out and black out effect in accordance to the STFI-internal test method PM 21 and classification in conformity with DIN EN 14501: 2006-02

Test conditions:

Two circular test patterns with diameter of 30 cm were cut out of the sample. The equipment for measuring the "illuminance reduction" contains lamps, which generate illumination intensities of 0.1 Lux up to 1000 Lux (high power-LED) and 1000 Lux up to 100 000 Lux (arc torch) in the sample area. The IR-radiation range, which is not part of the sun light, is filtered out before reaching the sample. The exposure of the sample takes place with parallelized light.

The measuring area and assessment box are geometrically and dimensionally realized that the whole sample area is observed with an 10° observation angle.

Measured values are determined at the observer position by luxmeter, as an alternative for the subjective assessment in human dark seeing mode. Also an image, made by an artificial eye camera, is supposed in this measuring mode.

The assessment of the regulation of light transmission of textile fabrics is defined in 2 classes (DIN EN 14501: 2006-02; p.15, table 6):

Regulation of light transmission of fabrics	Classification of fabrics
No perception of light in testing with 1000 Lux	dim out
No perception of light in testing with 100 000 Lux	black out

Test results:

Measurement and assessment at 1000 Lux illuminance:

Code	Illumination with sample	dimming degree	Perceptible result	Classification
P2673_19	Lux	%		
1	0,06	99,99	bright shining area visible	no complete dim out
2	0,00	100,00	stars visible	no complete dim out
3	0,63	99,87	bright shining area with stars visible	no complete dim out

Measurement and assessment at 100 000 Lux illuminance:

Code	Illumination with sample	dimming degree	Perceptible result	Classification
P2673_19	Lux	%		
1	3,92	99,99	bright shining area with stars visible	no complete black out
2	0,11	100,00	a lot of stars visible	no complete black out
3	38,85	99,88	very bright shining area with stars visible	no complete black out

The parameter "dimming degree" is a calculated value out of the measured illumination values with and without the sample and does not can be used as a basis of the classification (dim out and black out). The classification based on the subjective visual observation.

Unless otherwise agreed, all materials we received within this order will be kept for a maximum time of 6 month. Materials which are not stored because of technical or safety reasons are excluded from that

The testing period is defined as timeframe between receipt of samples and issue date of test report.

The test results are referring to the submitted samples. These test report is not allowed to copy in parts.

Dipl.-Ing. Marian Hierhammer
head of test department

stfi geprüft

Patrick Reinhardt, M.Sc.
field responsible collaborator

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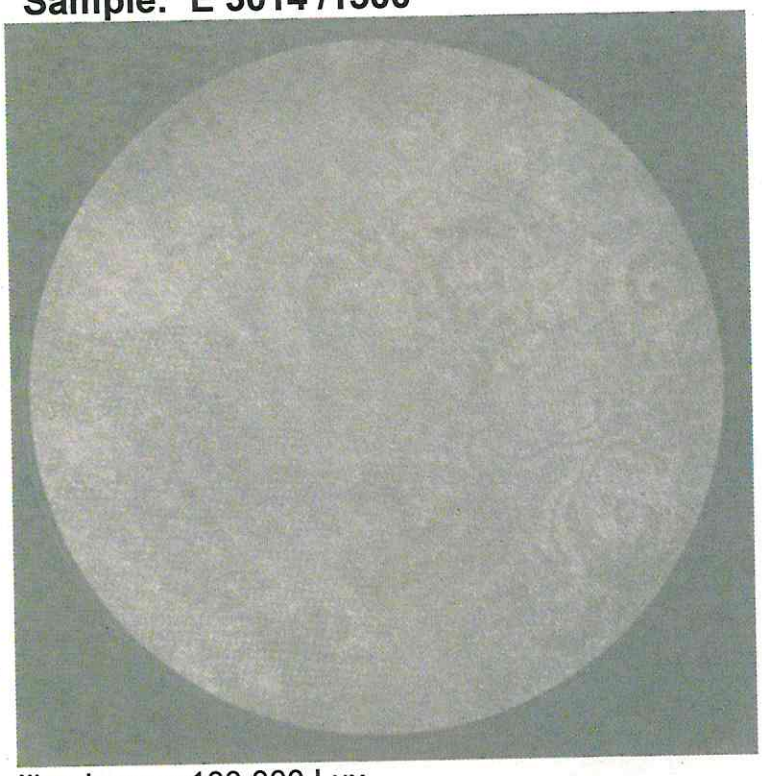
Sample: E 3014 /1500



Illuminance 100 000 Lux

Illuminance 1000 Lux

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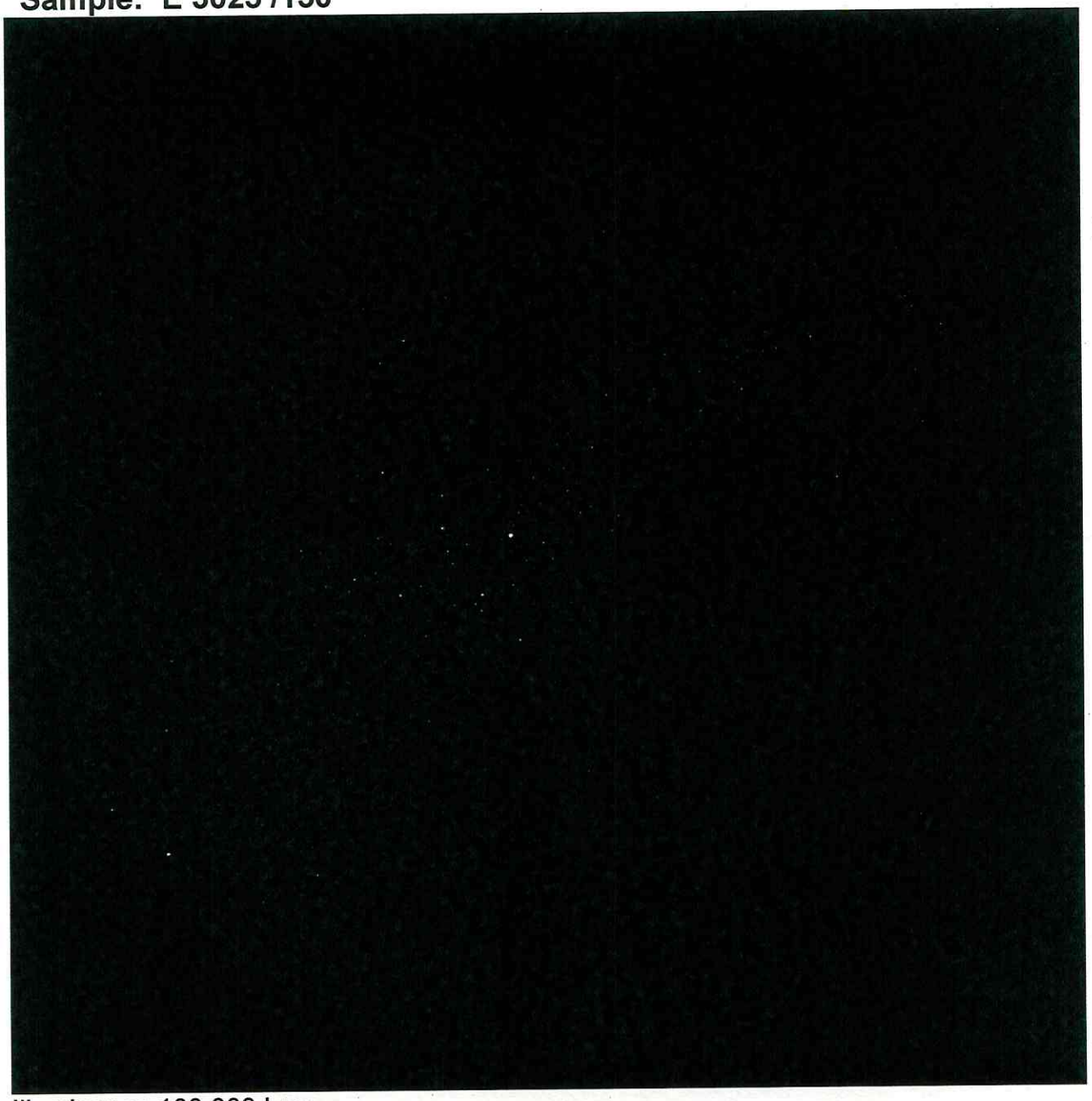
Sample: E 3025 /150



Illuminance 100 000 Lux

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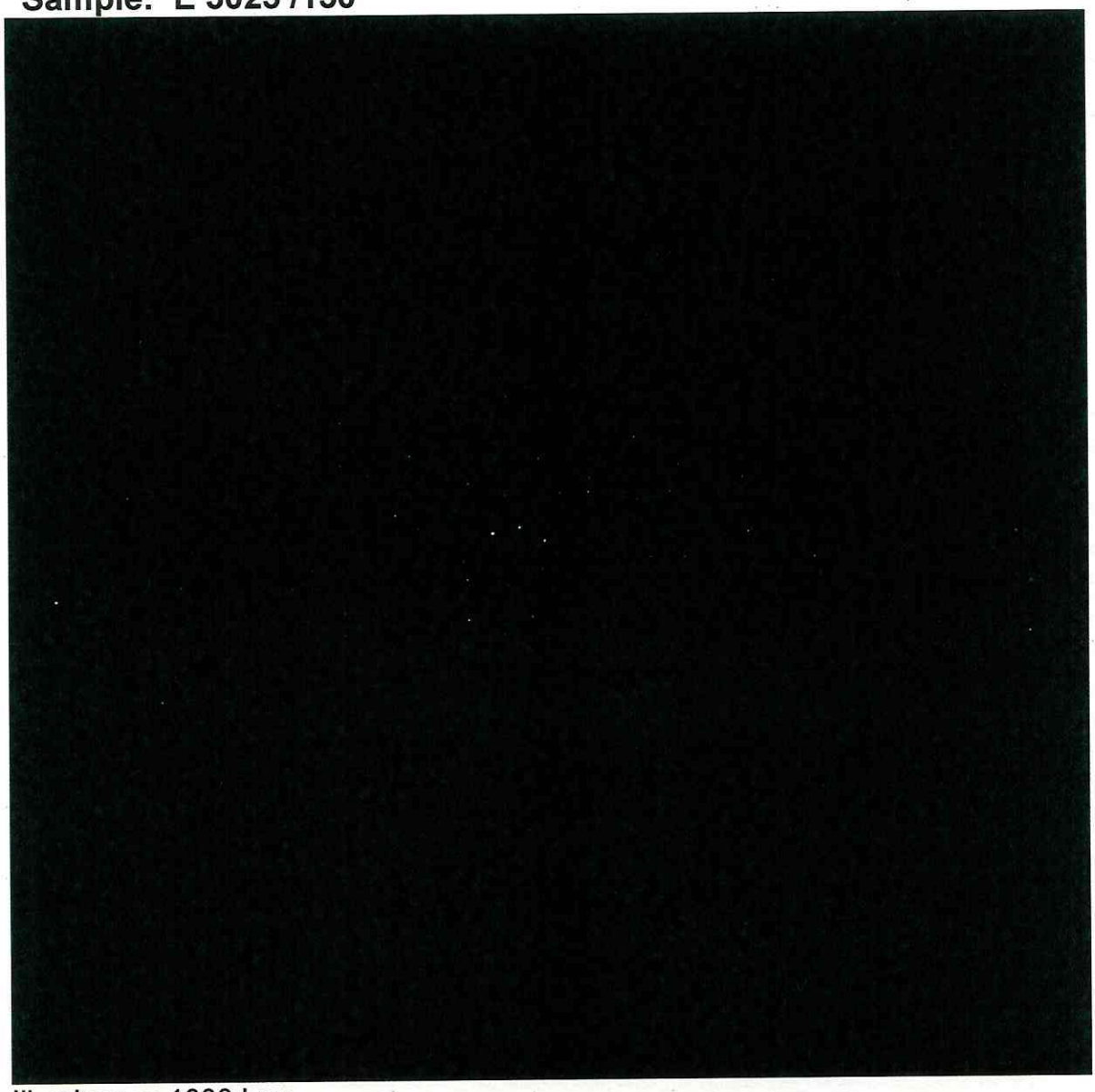
Sample: E 3025 /150



Illuminance 1000 Lux

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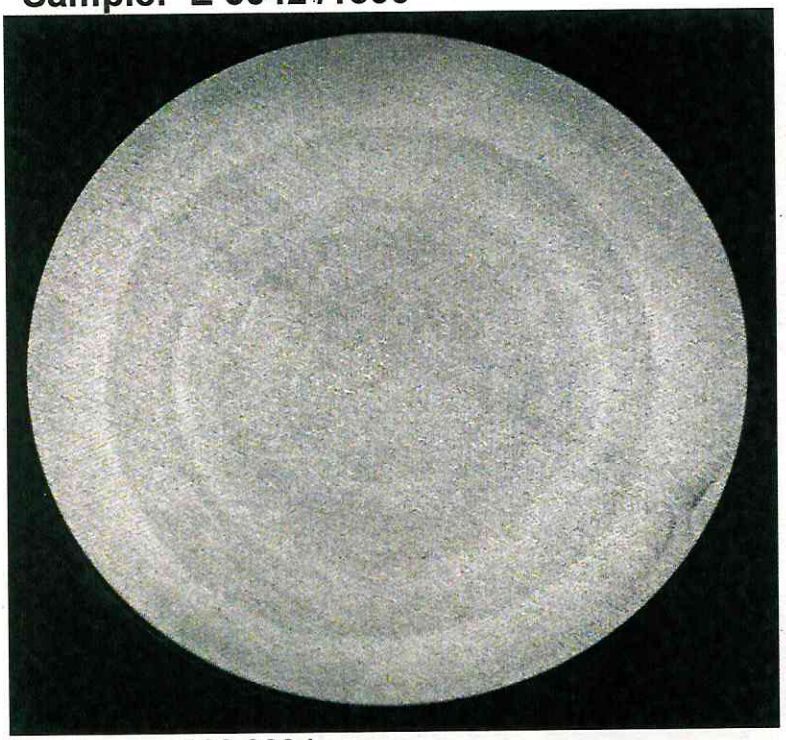
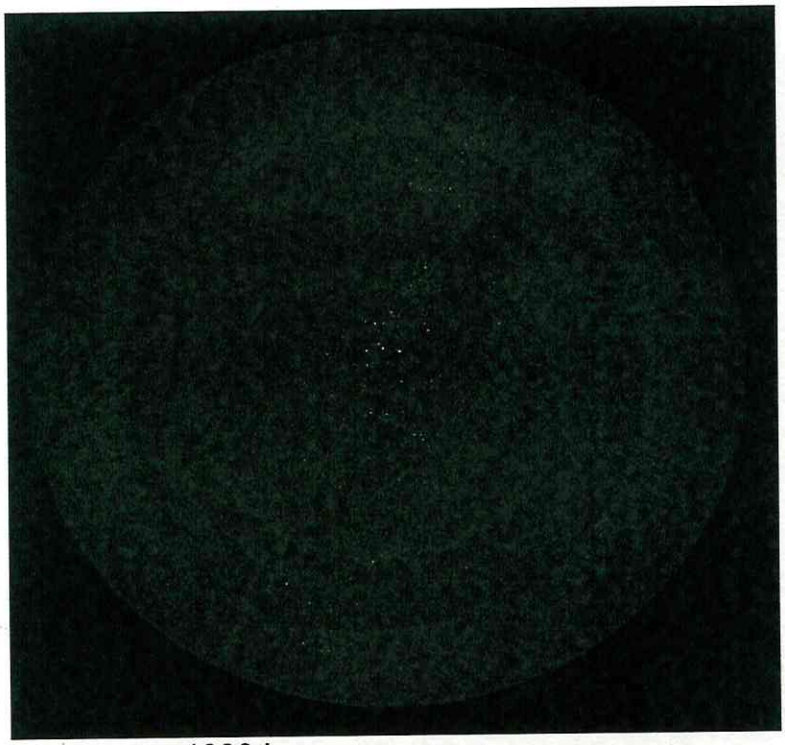
Sample: E 3042 /1500



Illuminance 100 000 Lux



Illuminance 1000 Lux