

# PRÜFSTELLE TEXTIL



SÄCHSISCHES  
TEXTIL  
FORSCHUNGS  
INSTITUT e.V.

Durch das DAP Deutsches Akkreditierungssystem Prüfwesen - vertreten im Deutschen Akkreditierungsrat - akkreditiertes Prüflaboratorium  
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Von der Internationalen Gemeinschaft für Forschung und Prüfung auf dem Gebiet der Textilökologie (Öko-Tex) zugelassenes Prüfinstitut im Rahmen der Zertifizierung nach Öko-Tex Standard 100



Von der Federation Internationale de L'Automobile (FIA) Paris zugelassene Stelle zur Prüfung von Schutzkleidung für Auto-Rennfahrer - FIA standard 8856-2000



## UNTERSUCHUNGSBERICHT | TESTREPORT

**Order number STFI:** 2137.6/08

**Report date:** 2008-11-26  
**Person responsible:** Mehlhorn

**Orderer:** création baumann Weavers and Dyers Ltd.  
Frau Doris Ringswald  
4901 LANGENTHAL  
SCHWEIZ

**Test order:**

**Date:** 2008-10-06  
**Order received:** 2008-10-08  
**Material received:** 2008-10-08

**Material to analyse:**

4 samples fabric

signed by orderer	color	code for order processing
STEEL BASE Art. 0 100 195	col. 56	Pm146_08_17
STEEL BASE Art. 0 100 195	col. 58	Pm146_08_16
STEEL BASE Art. 0 100 195	col. 59	Pm146_08_15
STEEL BASE Art. 0 100 195	col. 60	Pm146_08_18

The samples had been extracted by the orderer, concerning this no information is existing in the test department

**Analysis content:**

- (1) Remission and transmission in the visible light range (standard light D65) in accordance with DIN EN 410: 1998.
- (2) Remission and transmission in the global radiation range in accordance with DIN EN 410: 1998.
- (3) calculation of total energy permeability degree  $g_t$  of window system, following DIN EN 13363-1 2003 and approximated calculation of reduce factor  $F_c$  following DIN EN 14501 2006

**Conditions for optical tests:**

test parameter	symbol	range of radiation
light transmission degree	$\tau_{v,B}$	380...780 nm (standard light D65)
light remission degree	$\rho_{v,B}$	380...780 nm (standard light D65)
UV- transmission degree	$\tau_{UV}$	280...380 nm (UV-radiation)
solar transmission degree	$\tau_{e,B}$	280...2500 nm (global radiation)
solar remission degree	$\rho_{e,B}$	280...2500 nm (global radiation)

Equipment: spectral photometer Lambda 900, PERKIN - ELMER Corp., USA  
150 mm sphere

**Test results:**
**(1) Light range**
**UV-range**

Code	light transmission degree	light remission degree	light absorption coefficient	UV-transmission degree
Pm146_08	$\tau_{v,B}$	$\rho_{v,B}$	$\alpha_{v,B}$	$\tau_{UV}$
17	0,3678	0,1625	0,4697	0,3706
16	0,6061	0,3583	0,0356	0,4608
15	0,4206	0,1682	0,4112	0,3888
18	0,4130	0,1808	0,4062	0,3850

**(2) Global radiation range**

Code	solar transmission degree	solar remission degree	solar absorption coefficient
Pm146_08	$\tau_{e,B}$	$\rho_{e,B}$	$\alpha_{e,B}$
17	0,3988	0,1777	0,4235
16	0,6117	0,3457	0,0426
15	0,4249	0,1718	0,4033
18	0,4194	0,1836	0,3970

**(3) Total energy permeability degree  $g_t$  and reduce factor  $F_c$** 

Code	$g_t$	$F_c$
Pm146_08		
17	0,60	0,84
16	0,54	0,75
15	0,61	0,84
18	0,60	0,84

$F_c$  and  $g_t$  results are valid for the following presumptions in accordance with DIN EN 13363-1:

- Double glass with thermal protective covering, thermal permeability degree  $U = 1,6 \text{ W/m}^2\text{K}$  and total energy permeability degree  $g = 0,72$ ,
- sun protective material inside, closed.

The results are mean values from three measurements; spectrograms are kept in the test department.

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



Dr. Matthias Mägel  
head of test department




Dipl.-Phys. Heidrun Mehlhorn  
field responsible collaborator