




Fabric name	Eco-245
Fabric weight	245 ±5 gsm
Composition	65% Recycled Polyester/ 35% Recycled Cotton
Full width	150 ±2 cm
Weave	twill 3/1
Finishes	WR
Area of use	construction and transport sectors work wear
Washing instruction	

## Physical properties

			warp	weft
1	Tensile strength, N	ISO 13934-1:2013	1600	450
2	Tearing strength, N	ISO 13937-3:2000	50	23
3	Dimensional Stability To Washing, max.	ISO 6330:2000	3.0%	3.0%
4	Abrasion Resistance	ISO 12947-2:2002	> 30 000	
5	Pilling Resistance	ISO 12945-2:2000	3-4	
6	Colour Fastness To Washing (cotton+polyester) 60°C, min.	ISO 105-C06:2010		
	Colour change	ISO 105-C06:2010	4	
	Colour staining	ISO 105-C06:2010	3	
7	Colour Fastness To Perspiration, min.	ISO 105-E04:2013		
	Colour change		4	
	Colour staining		4	
8	Colour Fastness To Rubbing, min.	ISO 105-X12:2001		
	Dry		3-4	
	Wet		2-3	
9	Colour Fastness To Light	ISO 105-B02:2013	> 4	

**Test Report No.:** 0154097195a 001

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**Client:** SHANGHAI XM GROUP LTD

Office 2403~2403, 24th Floor, Zhongyi International Commercial Plaza, 1833  
Zhongshan North Road, Shanghai, China

Contact Person: Anna He

**Sample Description As Declared :**

No. Of Sample : One (1)  
Sample Description : Econom-245 TC 65/35 245gsm twill 3/1, Navy

**Sample Receiving date:** 2015-04-28

**Delivery condition:** Apparent good, Samples tested as received

**Test Period:** 2015-04-28 to 2015-05-04

For and on behalf of  
TÜV Rheinland (Shanghai) Co., Ltd.



2015-05-04 Tina Wu / Department Manager

Date

Name/Position

*Test result is drawn according to the kind and extent of tests performed.*

*This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.*

**Conclusion**

Banned Azo Dyes (1907/2006/EC)

M001  
P

Note : P = Pass  
# = No Comment  
N/A = Not Applicable

F = Fail  
- = Did Not Perform  
\* = See Remark

**Material list**

Material No.	Material	Color	Location
M001	Textile	Navy	Woven fabric

## 1. Banned Azo Dyes (1907/2006/EC)

**Test Method:** EN 14362-1:2012

### Test Result:

Test No.	Material No.	Method	Unit	RL	Test Result	Conclusion
1	M001	EN 14362-1	mg/kg	5	n.d.	Pass

**Abbreviation:** n.d. = not detected (< Reporting Limit)  
RL = Reporting Limit  
mg/kg = milligram per kilogram

### Remarks:

- \* The CAS-number 97-56-3 (A5) and 99-55-8 (A6) are further reduced to CAS-number 95-53-4 (A18) and 95-80-7 (A19).
- \*\* Azo colorants that are able to form CAS-number 60-09-03 (A22), generate under the condition of this method CAS-number 62-53-3 (A25) and 106-50-3 (A26).
- \*\*\* Azo colorants that are able to form 4-aminoazobenzene (A22), is confirmed by EN 14362- 3:2012/ ISO 17234-2:2011.
- \*\*\*\* Azo colorants are detected & quantified by GC/MS and confirmed by LC/MS.
- ^ Additional azo colorants were tested according to customer's requirement.

List of azo colorants being tested:

ID	Azo colorant	CAS No.	ID	Azo colorant	CAS No.
A1	biphenyl-4-ylamine / 4-aminobiphenyl / xenylamine	92-67-1	A14	p-cresidine	120-71-8
A2	benzidine	92-87-5	A15	4,4'-methylene-bis-(2-chloro-aniline) / 2,2'-dichloro-4,4'-methylene-dianiline	101-14-4
A3	4-chloro-o-toluidine	95-69-2	A16	4,4'-oxydianiline	101-80-4
A4	2-naphthylamine	91-59-8	A17	4,4'-thiodianiline	139-65-1
A5*	o-aminoazotoluene / 4-amino-2',3'-dimethylazobenzene / 4-o-tolylazo-o-toluidine	97-56-3	A18	o-toluidine / 2-aminotoluene	95-53-4
A6*	5-nitro-o-toluidine	99-55-8	A19	4-methyl-m-phenylenediamine	95-80-7
A7	4-chloroaniline	106-47-8	A20	2,4,5-trimethylaniline	137-17-7
A8	4-methoxy-m-phenylenediamine	615-05-4	A21	o-anisidine / 2-methoxyaniline	90-04-0
A9	4,4'-methylenedianiline / 4,4'-diaminodiphenylmethane	101-77-9	A22**	4-aminoazobenzene	60-09-3
A10	3,3'-dichlorobenzidine / 3,3'-dichlorobiphenyl-4,4'-ylenediamine	91-94-1	A23^	2,4-xylidine	95-68-1
A11	3,3'-dimethoxybenzidine	119-90-4	A24^	2,6-xylidine	87-62-7
A12	3,3'-dimethylbenzidine / 4,4'-bi-o-toluidine	119-93-7	A25^	Aniline	62-53-3
A13	4,4'-methylenedi-o-toluidine	838-88-0	A26^	4-aminoaniline	106-50-3

Sample Photo:



- END -

# CERTIFICATE

## The company

**SHANGHAI XM GROUP LTD.**  
Room 2402-2403 Zhongyi International Commercial Plaza 1833  
Zhongshan North Road  
Shanghai 200061  
China

is granted authorisation according to STANDARD 100 by  
OEKO-TEX® to use the STANDARD 100 by OEKO-TEX®  
mark, based on our test report **BJ015 206122.1**



## for the following articles:

**Woven fabrics made of 100% CO, CO/PES, CO/PES/CF, CO/PA/CF (CF with anti-static function), piece-dyed (vat and disperse) (partly finished with flame retardant products accepted by OEKO-TEX®) or with water, soil or oil repellent finishing; woven fabric made of 100% PES, 100% PA, PES/EL, white, piece-dyed (disperse and acid) and finished, or woven fabric made of 100% PES, transfer printed (disperse incl. fluorescent colours) and finished, all with PAN coating; undyed or dyed (incl. fluorescent colours) knitted fabrics (incl. fleece) and UV protection fabrics made of 100% PES, PES/CO, PES/CV, 100% MAC, MAC/CO, MAC/CV, MAC/CO/PES, 100% PP, PP/PES, with or without spandex (EL) and with or without antistatic; dyed woven/knitted bonded fabric made of PES, PES/EL with or without PU, TPU, PTFE membrane laminated (based on material pre-certified according to STANDARD 100 by OEKO-TEX®)**

The results of the inspection made according to STANDARD 100 by OEKO-TEX®, Annex 4, **product class II** have shown that the above mentioned goods meet the human-ecological requirements of the STANDARD 100 by OEKO-TEX® presently established in Annex 4 for products with direct contact to skin.

The certified articles fulfil requirements of Annex XVII of REACH (incl. the use of azo colourants, nickel release, etc.), the American requirement regarding total content of lead in children's articles (CPSIA; with the exception of accessories made from glass) and of the Chinese standard GB 18401:2010 (labelling requirements were not verified).

The holder of the certificate, who has issued a conformity declaration according to ISO 17050-1, is under an obligation to use STANDARD 100 by OEKO-TEX® mark only in conjunction with products that conform with the sample initially tested. The conformity is verified by audits.

**The certificate BEWO 084394 is valid until 8/15/2023**

Zurich, 7/22/2022

**Matz Bachmann**  
Managing Director

**Faisal Rizal**  
Ecology Team Leader

