



**Test Report**

**No. SHSL1506136040TX**

**Date: Jul 03, 2015**

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XM TEXTILES  
ROOM 2403, ZHONGYI INTERNATIONAL BUSINESS BUILDING NO.1833, NORTH ZHONGSHAN ROAD,  
PUTUO DISTRICT, SHANGHAI

The following sample(s) was/were submitted and identified on behalf of the client as:

- Sample Description : Reflective tape: 100% cotton FR in yellow-silver(XM-6010W Corsica-SL-009)
- Proposed Care Instruction : -
- Test Performed : Selected test(s) as requested by applicant
- Sample Receiving Date : Jun 16, 2015
- Testing Period : Jun 16, 2015 - Jul 03, 2015
- Test Result(s) : For further details, please refer to the following page(s).

Signed for and on behalf of  
SGS-CSTC Standards Technical Services (Shanghai) Co. Ltd

May Chen (Account Executive)

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**Test Result**

**\*High-visibility clothing – Test methods and requirements (EN ISO 20471:2013)**

**Clauses 6.1 and 7.3 Retroreflection for New Separate Performance Retroreflective Material**

<u>Entrance Angle</u>	<u>Observation Angle</u>	<u>Measured value (cd/(lx.m<sup>2</sup>))</u>	<u>Orientation-Sensitive</u>	<u>Minimum Requirement (cd/(lx.m<sup>2</sup>))</u>	<u>Result</u>
5°	12'	425	No	330	Pass
	20'	332	No	250	Pass
	1°	21	No	25	Fail
	1°30'	25	No	10	Pass
20°	12'	305	No	290	Pass
	20'	248	No	200	Pass
	1°	25	No	15	Pass
	1°30'	21	No	7	Pass
30°	12'	225	No	180	Pass
	20'	186	No	170	Pass
	1°	26	No	12	Pass
	1°30'	16	No	5	Pass
40°	12'	184	No	65	Pass
	20'	155	No	60	Pass
	1°	24	No	10	Pass
	1°30'	13	No	4	Pass

Table 4 of EN ISO 20471– Minimum coefficient of retroreflection in cd/(lx m<sup>2</sup>) for separate performance retroreflective material

Observation angle	Entrance angle $\beta_1$ ( $\beta_2 = 0$ )			
	5°	20°	30°	40°
12'	330	290	180	65
20'	250	200	170	60
1°	25	15	12	10
1°30'	10	7	5	4



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**Retroreflection of Separate Performance Retroreflective Materials**

**Clauses 6.2, 7.3 and 7.5.2 Retroreflection after Washing**

After 25 washes

Washing procedure: Ref ISO 6330:2012 Procedure No. 9N; Using horizontal axis, front-loading type machine: Machine wash at 90 degree C with 2 kg total dry mass (type III (100 % polyester) ballast + specimen) and 'ECE' detergent + sodium perborate + TAED, tumble dry low at 60 degree C

<u>Entrance Angle</u>	<u>Observation Angle</u>	<u>Measured value (cd/(lx.m<sup>2</sup>))</u>	<u>Orientation-Sensitive</u>	<u>Minimum Requirement (cd/(lx.m<sup>2</sup>))</u>	<u>Result</u>
5°	12'	327	No	100	Pass

**\* THIS TEST WAS CARRIED OUT BY SGS HK TEXTILE LAB.**



\*\*\* End of Report \*\*\*



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