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Kwun Tong
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Hong Kong

CQ reference: 155073/0733/2/Z

Date: 5th November 2007

Samples received: 16th August 2007

Attention of: S Smith

Testing completed: 10th September 2007

ASSESSMENT AGAINST SATRA PERFORMANCE GUIDELINES FOR FOOTWEAR

Subject: Evaluation of slide fasteners
Sample reference: S80 + Fulda puller
S80 + personalised puller

This is a revised report further to report reference dated 12th September 2007.

Conditions of Issue:

This report may be forwarded to other parties provided they are members of SATRA and that it is not changed in any way. It must not be given to non-members nor published, for example by including it in advertisements, without the prior written permission of SATRA.

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

Tests marked † fall outside the UKAS Accreditation Schedule for SATRA. All interpretations of results of such tests and the comments based upon them are outside the scope of UKAS accreditation and are based on current SATRA knowledge.

A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the client as a result of information supplied in the report.

Report signed by: Kala Tidball-Wykes
Footwear Consultant
Footwear Technology - Testing
On behalf of SATRA Technology Centre Ltd

EVALUATION OF SLIDE FASTENERS

SAMPLES RECEIVED

S80 + Fulda puller - black 8 x 300mm plastic spiral chain with black metal slider and puller

S80 + personalised puller - black 8 x 300mm plastic spiral chain with gunmetal metal slider and puller

TESTS REQUESTED

SATRA TM 51 (1993)	Lateral strength of slide fasteners
SATRA TM 52 (2002)	Strength of slide fastener pullers
SATRA TM 53 (1992)	Attachment strength of slide fastener end stops
SATRA TM 85 † (1994)	Resistance of slide fasteners to damage during closure under a lateral force
SATRA TM 226 † (1999)	Slider locking strength of slide fasteners

The samples were stored in a standard controlled environment of $23 \pm 2^{\circ}\text{C}/50 \pm 2\%\text{RH}$ for at least 48 hours prior to testing. Testing was also carried out in this standard atmosphere.

RESULTS

The results are given in detail in the attached tables.

COMMENTS

The results are given in detail in the attached tables.

Reference S80 + Fulda puller

The lateral strength, attachment strength of end stops, resistance to damage during closure under a lateral force and slider locking strength all meet our recommendations for heavy-duty or tight-fitting footwear. The strength of pullers meets out lower recommendation for loose-fitting footwear.

S80 + personalised puller

The strength of pullers, resistance to damage during closure under a lateral force and slider locking strength meet our recommendations for heavy-duty or tight-fitting footwear.

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SLIDE FASTENERS				
Reference:		S80 + Fulda puller		SATRA Recommended Performance Guideline
Type:		black 8 x 300mm plastic spiral chain with black metal slider and puller		
Test method	Property	Result	Loose-fitting footwear	Heavy-duty or tight-fitting footwear
SATRA TM 51 1993	Lateral strength (N)	1245	Min 400	Min 500
SATRA TM 52 method 1 2002	Strength of pullers - tension (N)	598	Min 250	Min 300
SATRA TM 52 method 2 2002	Strength of pullers – torsion * (N.m)	Clockwise 1.6 Anticlockwise 1.3	Min 1.2	Min 1.5
SATRA TM 53 method 1 1992	Attachment strength of end stops – top stop (N)	238	Min 135	Min 160
SATRA TM 53 method 3 1992	Attachment strength of end stops – bottom stop (N)	293	Min 135	Min 160
SATRA TM 85 † 1994	Resistance to damage during closure under a lateral force ** (N)	40 60 60	Min 30	Min 40
SATRA TM 226 † 1999	Slider locking strength (N)	156	40	60

* Average of two results in each direction.

** Individual results. When failure did occur on sample 1, the puller broke.

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SLIDE FASTENERS					
Reference:		S80 + personalised puller		SATRA Recommended Performance Guideline	
Type:		black 8 x 300mm plastic spiral chain with gunmetal metal slider and puller			
Test method	Property	Result		Loose-fitting footwear	Heavy-duty or tight-fitting footwear
SATRA TM 52 method 1 2002	Strength of pullers - tension (N)	958		Min 250	Min 300
SATRA TM 52 method 2 2002	Strength of pullers – torsion* (N.m)	Clockwise	3.2	Min 1.2	Min 1.5
		Anticlockwise	3.1		
SATRA TM 85 † 1994	Resistance to damage during closure under a lateral force** (N)	60	No damage fasteners still functional	Min 30	Min 40
		50			
		60			
SATRA TM 226 † 1999	Slider locking strength (N)	84		40	60

* Average of two results in each direction.

** Individual results. When failure did occur on sample 2, the puller broke.

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