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Test Procedure of Roller Blind

[124 DMU Project]

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Revision History

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1. General

This document describes the test procedure of roller blind for Tüvasas DMU.

2. Standard and Reference

2.1. Standard

DIN EN ISO 13934-1 Tensile properties of fabrics- Part 1: Determination of maximum force and elongation at maximum force using the strip method

DIN ISO 5084 Determination of thickness of textiles and textile products

DIN EN 12127 Fabrics- Determination of mass per unit area using small samples

DIN 5510-2:2009 Preventive fire protection in railway vehicle-Part 2: Fire behavior and fire side effects of materials and parts-Classification, requirements and test methods

EN 45545-2:2013 Railway applications- Fire protection on railway vehicles-Parts 2: Requirements for fire behavior of materials and components

EN ISO 105-B01 Textiles - Tests for color fastness - Part B01: Color fastness to light: Daylight (ISO 105-B01:2014)

2.2. Reference

Document: TD-DMU.21.0049 (Product Description of Roller Blind (124 DMU))

Drawing: RFP51010AN0 (Curtain, Roller Blind Assy)

3. Inspection and Test

3.1. Visual Inspection

There is no scratches and cracks, no chips, pin holes, discolor on the component surfaces.

3.2. Dimensional Inspection

Dimension and shape shall comply with relevant drawing and have no something improper.

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3.3. Screen Mechanical Property Test

Items	Criteria	Standard	Remark
Weight	100 - 500g/m2	DIN EN 12127	
Thickness	Under 0.2 - 0.9mm	DIN ISO 5084	
Tensile Strength	Warp : Over 500 N / 5 cm Weft : Over 500 N / 5 cm	DIN EN ISO 13934-1	
Light Fastness	Over 4 grade	EN ISO 105 B01	
(Transmission/Openness Factor)	%20-%45		

Note: Certificate may be replaced as test result.

3.4. Fire Resistance

- EN 45545-2:2013 / R1-HL2

Or

- DIN 5510-2:2009 / S3-SR2-ST2-FED≤1(30 minute)

Note: Certificate may be replaced as test result.

3.5. Inspection and test item

Items	Type Test	Routine Test	Remark
Visual Inspection	○	○	
Dimensional Inspection	○	○	
Mechanical Property	○		
Fire Resistance	○		
Durability	○		Over 30,000 cycles

Note: Durability test may comply with the test method of sub-supplier.

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4. Inspection & Test Sheet

PROJECT	TUVASAS DMU	Roller Blind & Sun Visor	Inspector	
			Signature	
			Date	

Items	Criteria	Standard	Result
Inspection			
Visual Inspection	- There are no any scratches and cracks on the surfaces. - There are no any major chips, pin holes and discolor on the surfaces. - There are no dust and traces.		Pass/ Fail
Dimensional Inspection	All dimensions of drawings shall be checked.		Pass/ Fail
Test			
Weight	100 - 500g/m^2	DIN EN 12127	Pass/ Fail
Light Fastness	Over 4 grade	EN ISO 105 B01	Pass/ Fail
Thickness	0.2 - 0.9 mm	DIN ISO 5084	Pass/ Fail
Tensile Strength	Warp : Over 500 N/ 5 cm	DIN EN ISO 13934-1	Pass/ Fail
	Weft : Over 500 N/ 5 cm		
Fire Performance	R1-HL2	EN 45545-2:2013	Pass/ Fail
	S3-SR2-ST2-FED≤1(30 minute)	DIN 5510-2:2009	Pass/ Fail
Durability	Sub-supplier's test method	Over 30,000 cycles	Pass/ Fail

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