



中国认可
标志
TSG 03
CQC L7042

No.: 2/3

CRCC (Qingdao) Vehicle Inspection Station Co.,
Ltd.

Test Report

(2018) CL No.W3296



Product Name: Halogen Free Wiring Duct

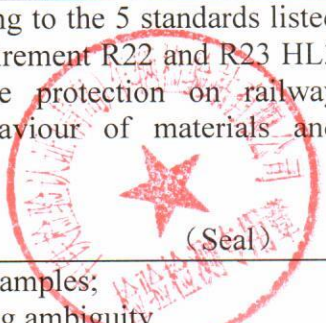
Consigner: Shanghai Richeng Electronics Co., Ltd

Test Type: Test on sample offered by consigner

Test Sponsor: CRCC (Qingdao) Vehicle Inspection Station Co.,
Ltd.

Released on: Nov.07, 2018

CRCC (Qingdao) Vehicle Inspection Station Co., Ltd. The First Page of the Test Report

Product Name	Halogen Free Wiring Duct	Model	PCABS
		Trade Mark/Label	/
Consigner	Shanghai Richeng Electronics Co., Ltd		
Manufacturer	Shanghai Richeng Electronics Co., Ltd (Offered by consigner)		
Test Type	Test on sample offered by consigner	Sample Source	Offered by consigner
Sampling Date	/	Sample quantity	One group
Production Date/Batch	/	Sample Number	2018W-3296-1
Sample Arrival Date	Oct. 18, 2018	Sample State	No visible apparent defect found
Sampling Method / Evaluation Criteria	R22 and R23 of EN45545-2:2013 Railway applications-Fire protection on railway vehicles Part 2: Requirements for fire behaviour of materials and components.		
Test Criteria	DIN EN ISO4589-2:2006 Plastics-Determination of burning behaviour by oxygen index-Part 2: Ambient-temperature test. Appendix C of EN45545-2:2013 Railway applications-Fire protection on railway vehicles Part 2: Requirements for fire behaviour of materials and components. ISO 5659-2:2012 Plastics-Smoke generation-Part 2: Determination of optical density by a single-chamber test. NF X70-100-1:2006 Fire tests - Analysis of gaseous effluents - Part 1: methods for analysing gases stemming from thermal degradation. NF X70-100-2:2006 Fire tests - Analysis of gaseous effluents - Part 2: tubular furnace thermal degradation method.		
Test Items	OI, D _{smax} , CO, CO ₂ , HF, HBr, HCl, NO _x , SO ₂ , HCN.		
Main Test Instruments & Equipment	FTT smoke density chamber, FTT oxygen index machine, CTA tube furnace, ICS-1100 ion chromatography, 7230G visible spectrophotometer, CPA324S electronic scales, Oxynitride analyser.		
Test Place	New Material Laboratory, Shibe District	Test Date	Oct.18~ Nov.06, 2018
Inspection Conclusion	Tests have been executed on the sample according to the 5 standards listed in the test criteria, and test results meet the requirement R22 and R23 HL3 of EN45545-2:2013 Railway applications-Fire protection on railway vehicles Part 2: Requirements for fire behaviour of materials and components. <div style="text-align: right; margin-top: 10px;">  </div>		
Remark	This report is only responsible for the delivered samples; It should follow the Chinese meaning if producing ambiguity.		

Prepared by: 葛忠慧

Reviewed by: 梁心

Approved by: 丁 昆 昌

CRCC (Qingdao) Vehicle Inspection Station Co., Ltd.

Product quality inspection report of Halogen Free Wiring Duct

No.	Test items	Technical requirements	Unit	Test results	Remarks
				2018W-3296-1	
1	OI	DIN EN ISO4589.2:2006 Type III sample OI (R22 and R23 HL3) $\geq 32\%$	%	35.0	/
2	D _{smax}	ISO5659-2:2012 D _{smax} (R22 and R23 HL3) ≤ 150	/	59	Irradiance 25kW/m ² with flame
3	CO ₂	EN45545-2:2013 Appendix C NF X70-100-1:2006 NF X70-100-2:2006 CIT _{NLP} (R22 and R23 HL3) ≤ 0.75	mg/g	1103	Reference concentration: 72000
	CO		mg/g	179	Reference concentration: 1380
	HCN		mg/g	0.3	Reference concentration: 55
	HF		mg/g	0.6	Reference concentration: 25
	HCl		mg/g	0.6	Reference concentration: 75
	HBr		mg/g	Undetected	Reference concentration: 99
	SO ₂		mg/g	Undetected	Reference concentration: 262
	NO _x		mg/g	0.3	Reference concentration: 38
	CIT _{NLP}		/	0.19	/
Note	<p>1. The thickness of the D_{smax} sample is 1.7mm;</p> <p>2. $CIT_{NLP} = 1 \frac{g}{m^3} \sum_{i=1}^{i=8} \frac{Y_i}{C_i}$, Y_i is the concentration of measured gas, mg/g, C_i is the reference concentration of measured gas, mg/m³;</p> <p>3. The detection limit of HBr is 0.05mg/g; the detection limit of SO₂ is 0.2 mg/g.</p>				

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Notice

1. This test report is not effect without “special seal of test” and riding stitch.
2. This test report is not effect without signatures of compiler, auditor and authority.
3. This test report is not effect with alteration.
4. The copy of this test report is not permitted without written authorization (except for full copy) and the copy of this test report is not effect without “special seal of test” and riding stitch.
5. Consigned test includes three kinds of test that are consigned type test, consigned sample test and consigned deliver test. Commonly, “consigned type test” is complete items test according to consigned type test items depending on the criterion of products. Other consigned tests are part items test according to the criterion of products.
6. Consigned sample and information are offered by consigner, we are not responsible for its authenticity.
7. Any objection to the test report shall be filed to the inspection unit within 15 days from date of receipt of the test report, and an overdue will not be accepted.
8. The samples will be regarded as abandonment if the consigner (manufacturer) does not take them back within 15 days from the receipt of the test report.

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