

MR. KIET WAN LEE SUPERLON WORLDWIDE SDN BHD LOT 2736 JALAN RAJA NONG 41200 KLANG SELANGOR MALAYSIA

Date: 2012/01/10 Subscriber: 100410921 PartySite: 1625305 File No: E156619 Project No: 11CA42599 PD No: 12001150 Type: R PO Number:

### Subject: Procedure And/Or Report Material

The following material resulting from the investigation under the above numbers is enclosed.

Data	77-1	0	Damaa	Desei and Data
Date	Vol	Sec	Pages	Revised Date
	1		Revised Index Page(s) 1	2012/01/10
	1		Appendix	
1994/02/	′07 1	1	Revised Description Page(s) 1,4,5	2012/01/10
1994/02/	′07 1	1	New Test Record 5	2012/01/10
2012/01/	'10		Add New Indep Report	

Please file revised pages and illustrations in place of material of like identity. New material should be filed in its proper numerical order.

NOTE: Follow-Up Service Procedure revisions DO NOT include Cover Pages, Test Records and Conclusion Pages. Report revisions DO NOT include Authorization Pages, Indices, Section General Pages and Appendixes.

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SCL File

Issue

File E156619	Vol. 1	Index	Page 1	Issued:	2008-03-17
				Revised:	2012-01-10

Material Designation	Report Date	USR	CNR
*FR-7 (b)	2012-01-10	х	-
JR501, JR502	1994-02-07	Х	Х
*			

File E156619	Vol. 1	Sp. App. B	Page 1	Issued: 2011-11-14
	(File behind Appendix D)			Revised: 2012-01-09

COMPONENT - PLASTICS (QMFZ2, QMFZ3, QMFZ8, QMFZ9)

Sample Group	#/Group /Year	Generic Class	Material Designation	Report Date	Thk, mm	Color	Flame	IR Ref	TGA Ref	DSC Ref	GC Ref	Additional Info	Test Program Code	
1	1	Nitrile R	ubber (NBR)											
			JR501 (a), JR502 (a)	1994-02-07	13.0	BK	V-0, 5VA	-	-	-	1-12-93	FUS samples should be sent to an office that can do the Pyrolytic GC.	Q, S, TR0082, TR0471	
2	1	Nitrile R	itrile Rubber (NBR)											
	1		FR-7 (b)	2012-01-10	2.0	GY	HF-1	T12-13-11	T01-92-11	T07-42-11	-	FR-7(b) where (b) represent 2.0mm with density of 0.16g/cc, 6.0mm with density of 0.09g/cc and 12.0mm with density of 0.06g/cc.	c	

TABLE B - INDEX TO TESTING

File E156619Vol. 1Sp. App. BPage 2Issued: 2011-11-14(File behind Appendix D)Revised: 2012-01-09

COMPONENT - PLASTICS (QMFZ2, QMFZ3, QMFZ8, QMFZ9)

INDEX TO FOOTNOTES:

(a) - Density range: 0.074-0.082 g/cc.

(b) - 2.0mm with density of 0.16g/cc, 6.0mm with density of 0.09g/cc

and 12.0mm with density of 0.06g/cc.

File E156619	Vol. 1	Sec. 1	Page 1	Issued:	1994-02-07
		and Report		Revised:	2012-01-10

DESCRIPTION

PRODUCT COVERED:

Component - Plastics; Nitrile Butadiene Rubber (NBR)

\*MATERIAL DESIGNATION: Grade JR501, JR502, designated "Superlon"

GENERAL DESCRIPTION OF MATERIAL:

Grade:

JR501 and JR502 are foamed nitrile rubber material.

MATERIAL MODIFICATIONS - There shall be no changes in the formulation or composition of the material unless previously cleared through Underwriters Laboratories Inc.

FORM OF SHIPMENT - The materials are produced and shipped in the form of tubes (JR501) and sheets (JR502 and FR-6).

COLOR (NOT FOR UL REPRESENTATIVE USE):

The materials covered by this report may be pigmented in the colors shown on Table I and Table II. Maximum pigment loading of the materials does not exceed 0.5 percent organic or 5.0 percent inorganic by weight unless otherwise indicated below.

Material	Maximum Pigment Loading by Weight					
Designation	Percent Organic	Percent Inorganic				
*						

TABLE I MATERIAL PROPERTIES

				R.	т.г.'	°C			Н	D		Н	Diel	Vol			Η					G	G	
		Min.	UL94	Elec	Me	ch	Н	Н	V	4	С	V	Str+	Res	Dim	$H_2$ O	D	Ten	Ten	Izod	Flex	W	W	Ball
		thk	Flame		with	w/o	W	А	Т	9	Т	А	Kv/	ohm-	Stab	Abs.	Т	Imp	Str	Imp	Str	I	F	Pres
Material Designation	Color	mm	Class		Imp	Imp	I	I	R	5	I	R	mm	cm	90	olo	°C	$kJ/m^2$	MPa	J/M	MPa	°C	°C	°C
JR501, JR502	BK	6.80	V-0,	50	50	50																		
			5VA																					
*																								

File E156619	Vol. 1	Sec. 1	Page 5	Issued:	1994-02-07
		and Report		Revised:	2012-01-10

## TABLE II

# CNR MATERIAL PROPERTIES

			Minimum				
Mate	erial		Thickness	Flame	HWI HAI	CTI	HVAR
Design	nation	Color	(mm)	Class	s arc	V	(s)
JR501,	JR502	BK	6.80	V-0 5VA		_	_

\*

TEST RECORD NO. 5

Grade FR-6 is be deleted from the file E156619 as per client request dated 2011-06-29 due to FUS non-conformance FUS Tag No. F756403.

Test Record Summary:

The results of this investigation indicate that the product(s) evaluated comply with the applicable requirements in

- the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL94, Fifth Edition, revised December 07, 2011
- □ the Standard for Polymeric Materials Short Term Property Evaluations, UL746A, Fifth Edition, revised October 25, 2011
- the Standard for Evaluation of properties of Polymeric Materials, CSA C22.2 No. 0.17-00, Second Edition (reaffirmed 2009)

and therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

Test Record by: Sara Fu Associate Project Engineer Reviewed by: Katherine Jie Project Engineer File E156619 Project 11CA42599

January 10, 2012

Report

On

Component - Plastics

## SUPERLON WORLDWIDE SDN BHD SELANGOR , MALAYSIA.

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#### SAMPLES:

Specimens of the materials noted below have been found to comply with the requirements of the following Standards in effect as of this Report.

		Maximum Pig		
		Loading(%wt		
Tested Grade(s)	Color(s)	Organic	Inorganic	Thk (mm)
FR-7 (b)	GY	30%	-	2.0, 6.0,
				12.0

(\$) - Maximum pigment loading of the materials does not exceed 0.5% organic or 5.0% inorganic by weight unless otherwise indicated

(b) - Density for 2.0mm is 0.16g/cc, 6.0mm is 0.09g/cc and 12.0mm is 0.06g/cc.

GENERAL:

Test results relate only to the items tested.

The test methods and results stated below have been reviewed and found to be in accordance with the requirements in the current edition of the applicable Standard.

For original data, see Test Record Supplement T1, Datasheet 1 to 3.

#### METHOD:

UL746A - Polymeric Materials - Short Term Property Evaluations, Fifth Edition

Infrared Spectroscopy (IR) - Sec. 42 Thermogravimetry (TGA) - Sec. 45 Differential Scanning Calorimetry (DSC) - Sec. 46

Density Determination of Foamed Polymeric Materials - Sec. 41

		R	eference Date	S
Grade	Material	IR(§42)	TGA(§45)	DSC(§46)
HF-7(b)	Nitrile Rubber (NBR)	T12-13-11	T01-92-11	T07-42-11

UL 94 - Tests for Flammability of Plastics Materials for Parts in Devices and Appliances, Fifth Edition

Horizontal Burning Foamed Material Test; HBF, HF-1 OR HF-2 - Sec. 12

Test Record Summary:

The results of this investigation indicate that the product(s) evaluated comply with the applicable requirements in

- the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL94, Fifth Edition, revised December 07, 2011
- □ the Standard for Polymeric Materials Short Term Property Evaluations, UL746A, Fifth Edition, revised October 25, 2011

and therefore, such products are judged eligible to bear UL's Mark as described on the Conclusion Page of this Report.

Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

## CONCLUSION

Samples of the component covered by this Report have been found to comply with the requirements covering the category and the components are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the sample(s) investigated by UL and does not signify the product(s) described as being covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the Recognized Marking on such products which comply with UL's Follow-Up Service Procedure and any other applicable requirements of Underwriters Laboratories Inc. The Recognized Component Mark of Underwriters Laboratories Inc. on the product, or the Recognized Marking symbol on the product and the Recognized Component Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Recognition and Follow-Up Service.

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REPORT BY:

REVIEWED BY:

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