VP Engineering
GRUPA AZOTY S A
Kwiatkowskiego 8
33-101 Tarnow POLAND

Date: 2016/03/14
Subscriber: 100532213
PartySite: 638112
File No: E337949
Project No: 4787090201
PD No: 16Q02073
Type: R
PO Number:

Subject: **Procedure And/Or Report Material**

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

Issue Date	Vol	Sec	Pages	Revised Date
	1		Appendix	
2011/11/14	1	A	Cert of Compliance	
2016/03/11			Add New Indep Report	

PO: 10965988 / Jozef Jasnosz

Inspections at your plant will be conducted under the supervision of MARIUSZ PYRCIK, FIELD SERVICE AREA MANAGER, UL INSPECTION CENTER POLAND, UL INTERNATIONAL POLSKA SP Z O O, ALEJA KRAKOWSKA 81, SEKOCIN NOWY, K WARSZAWY, Poland, 05-090., PHONE: 48-509-855-437, FAX: 48-22-336-33-01, EMAIL: mariusz.pyrcik@ul.com

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.

Please review this material and report any inaccuracies to UL's Customer Service Professionals. Contact information for all of UL's global offices can be found at http://ul.com/aboutul/locations.

If you'd like to receive updated materials FASTER, UL offers electronic access and/or delivery of this material. For more details, contact UL's Customer Service Professionals as shown above.

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SCL File

UL INSPECTION CENTER 886

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

TABLE B - INDEX TO TESTING

Sample Group	#/Group /Year	Generic Class	Material Designation	Report Date	Thk, mm	Color	Flame	MCC Ref	IR Ref	TGA Ref	DSC Ref	Additional Info	Test Program Code
1	3	Polyamide 6 (PA6)											
			Tarnamid T-27 GF(ab)	2011-01-21	0.8	ANY	HB	-	C26693, C11-22-10 and C27562, C01-06-12	C11-22-10 and C01-06-12	C11-25-10 and C01-08-12	Tarnamid T-27 GF15- C26693, C11-22-10; C11-22-10; C11-25-10 Tarnamid T-27 GF30 - C26694, C11-23-10; C11-23-10; C11-26-10 Tarnamid T-27 GF50 - C27562, C01-06-12; C01-06-12; C01-08-12	A
			Tarnamid T-27 GF1(ab)	2011-01-21	0.8	ANY	HB	-	C27561, C01-05-12 and C26695, C11-24-10	C01-05-12 and C11-24-10	C01-07-12 and C11-25-10	Tarnamid T-27 GF115 - C27561, C01-05-12, C01-05-12, C01-07-12, Tarnamid T-27 GF150 - C26695, C11-24-10, C11-24-10, C11-25-10	A
			Tarnamid T-27 GF115	2011-01-21	0.8	ANY	HB	-	C27561, C01-05-12	C01-05-12	C01-07-12	-	A
			Tarnamid T-27 GF15	2011-01-21	0.8	ANY	HB	-	C26693, C11-22-10	C11-22-10	C11-25-10	Follow Up is Preformed under Footnoted	A

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

TABLE B - INDEX TO TESTING

Sample Group	#/Group /Year	Generic Class	Material Designation	Report Date	Thk, mm	Color	Flame	MCC Ref	IR Ref	TGA Ref	DSC Ref	Additional Info	Test Program Code
												Grade.	
			Tarnamid T-27 GF150	2011-01-21	0.8	ANY	HB	-	C26695, C11-24-10	C11-24-10	C11-25-10	Follow Up Is preformed Under Footnoted Grade	A
			Tarnamid T-27 GF20 FRV0	2016-03-08	3.2	GY	V-0	-	K01-12-16	K01-14-16	K01-15-16	-	B
			Tarnamid T-27 GF20 FRV2	**2016-03-11**	**1.6**	**GY BK**	**V-2**	**-**	**K01-13-16**	**K01-16-16**	**K01-17-16**	**-**	**B**
			Tarnamid T-27 GF30	2011-01-21	0.8	ANY	HB	-	C26694, C11-23-10	C11-23-10	C11-26-10	Follow Up Is Preformed Under Footnoted Grade.	A
			Tarnamid T-27 GF30 FRV0	2016-02-10	1.6	NC	V-0	-	K01-14-16	K01-18-16	K01-19-16	-	B
			Tarnamid T-27 GF50	2011-01-21	0.8	ANY	HB	-	C27562, C01-06-12	C01-06-12	C01-08-12	-	A
			Tarnamid T-27 MCS V0	2016-03-11	1.6	GY	V-0	-	K01-15-16	K01-20-16	K01-21-16	-	B
					1.6-1.76	BK	V-0	-	K01-15-16	K01-20-16	K01-21-16	-	B

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

INDEX TO FOOTNOTES:

(ab) - may be replaced with two digits represent glass fiber content in % weight from a range between 15 to 50.

CERTIFICATE OF COMPLIANCE

Certificate Number	20160314-E337949
Report Reference	E337949-20111114
Issue Date	2016-MARCH-14
Issued to:	GRUPA AZOTY S A KWIATKOWSKIEGO 8, 33-101 TARNOW POLAND
This is to certify that representative samples of	COMPONENT - PLASTICS Polyamide 6 (PA6), Material Designation: Tarnamid T-27 GF(ab), Tarnamid T-27 GF1(ab), Tarnamid T-27 GF115, Tarnamid T-27 GF15, Tarnamid T-27 GF150, Tarnamid T-27 GF20 FRV0, Tarnamid T-27 GF20 FRV2, Tarnamid T-27 GF30, Tarnamid T-27 GF30 FRV0, Tarnamid T-27 GF50, Tarnamid T-27 MCS V0. INDEX TO FOOTNOTES: (ab) - may be replaced with two digits represent glass fiber content in % weight from a range between 15 to 50. Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	For standard information please visit UL iQ Plastics Database (https://my.secure.home1.ul.com/portal/page/portal/usa/iQ/iQWelcome)
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

File E337949

Project 4787090201

March 11, 2016

Report

On

Component - Plastics

GRUPA AZOTY S A

TARNOW, POLAND

TEST RECORD NO. 1

SAMPLES:

Specimens of the materials noted below have been found to comply with the requirements of the following Standards.

Tested Grade	Colors	Maximum Pigment Loading(wt.%)$			Thk (mm)
		Organic	Carbon Black	In-organic	
Tarnamid T-27 GF20 FRV2	GY, BK	($)	($)	($)	1.6, 3.2

($) - Maximum pigment loading of the materials does not exceed 0.5% organic, 2.5% carbon black or 5.0% inorganic by weight unless otherwise indicated

No additional testing was deemed necessary in order to establish Canadian National Recognition. The following tests were considered representative of the same tests required by CAN/CSA-C22.2 No. 0.17. A CRD is not required in this category since all applicable requirements are performance based only.

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 within the Standards noted in the Summary.

METHOD:
UL746A – Polymeric Materials – Short Term Property Evaluations

- Infrared Spectroscopy (IR) - Sec. 43
- Thermogravimetry (TGA) - Sec. 46
- Differential Scanning Calorimetry (DSC) - Sec. 47

Grade	Material	Reference Dates		
		IR	TGA	DSC
Tarnamid T-27 GF20 FRV2	PA6	K01-13-16	K01-16-16	K01-17-16

UL 94 – Tests for Flammability of Plastics Materials for Parts in Devices and Appliances

- 20 mm Vertical Burning Test; V-0, V-1, or V-2 - Sec. 8

UL746A – Polymeric Materials – Short Term Property Evaluations

- Hot Wire Ignition (HWI) - Sec. 32
- High-Current Arc Ignition (HAI) - Sec. 33

UL746B - Polymeric Materials - Long Term Property Evaluations

- Relative Thermal Index based upon Historical Record – Sec. 7

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in

- the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL94, Sixth Edition, revised January 22, 2016
- the Standard for Polymeric Materials - Short Term Property Evaluations, UL746A, Sixth Edition, revised January 27, 2016
- the Standard for Polymeric Materials - Long Term Property Evaluations, UL746B, Fourth Edition, revised July 16, 2014
- the Evaluation of Properties of Polymeric Materials, CAN/CSA-C22.2 No. 017-00, Second Edition, revised October 1, 2000, reaffirmed 2013

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 UL LLC 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 UL LLC. The Recognized Component Mark of UL LLC 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.

This Report is intended solely for the use of UL and the Applicant for establishment of UL certification coverage of the product under UL's Follow-Up Service. Any use of the Report other than to indicate that the sample(s) of the product covered by the Report has been found to comply with UL's applicable requirements is not authorized and renders the Report null and void. UL shall not incur any obligation or liability for any loss, expense, or punitive damages, arising out of or in connection with the use or reliance upon the contents of this Report to anyone other than the Applicant as provided in the agreement between UL and Applicant. Any use or reference to UL's name or certification mark(s) by anyone other than the Applicant in accordance with the agreement is prohibited without the express written approval of UL. Any information and documentation involving UL Mark services are provided on behalf of UL LLC or any authorized licensee of UL.

REPORT BY:

Monica Zappa
Engineering Associate

Reviewed By:

Erwin Davelaar
Staff Engineer

Data Validation By:

Luigi Pellegrino
Senior Engineering Associate