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Date: 2012/04/10 Subscriber: 580453001 PartySite: 126102 File No: E132504 Project No: 11CA48950

PD No: 12013841

Type: PO Number:

10 10

Subject: Procedure And/Or Report Material

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

Issue

Date	<u>Vol</u>	Sec	Pac	<u>jes</u>	Revised Date
2011/07/2	3 1	6	New	Description Page(s) 6,7	2012/04/05
2011/07/2	3 1	6	Revised	l Description Page(s) 1	2012/04/05
2011/07/2	3 1	6	New	Test Record 3	2012/04/05

Inspections at your plant will be conducted under the supervision of ALBERTO DUCCO, UL INSPECTION CENTER ITALY, UL INTERNATIONAL ITALIA S R L, VIA DELLE INDUSTRIE 6, CARUGATE, MI, Italy, 20041., PHONE: 02-92503535, FAX: 02-92503568, EMAIL: ALBERTO.DUCCO@IT.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://www.ul.com/global/eng/pages/corporate/contactus.

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MIL File

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Material	Construction	Description No.	Test Record(s)						
FEP	Insulated Single	1	T1						
*Polyurethane Non-integral jacketed cable		2	Т2						
PVC	Insulated Single	3, 4	т3						

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DESCRIPTION NO. 3

PRODUCT COVERED:

Appliance Wire, Extruded PVC, Insulated Singles, Class I, Group A, B, or A/B.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

CNR indicates investigation to Canadian Standard C22.2 No. 210. This product shall be constructed in accordance with the Canadian Standard for Appliance Wiring Material Products, C22.2 No. 210, and as described below.

CONSTRUCTION DETAILS:

Marking - In accordance with the Section General.

Construction - This is an insulated single with extruded PVC insulation. See below for details.

Conductor - Solid or stranded, metal-coated, size in accordance with the table below.

Insulation - In accordance with the table below.

TABLE I

Insulation Material:		PVC			Class	21				
Use Class:		I (Int	ernal)							
Group:		A (Not	subje	ct to	mechani	cal ak	ouse)			
		B (Potentially subject to mechanical abuse), or								
		A/B								
Voltage Rating:		30, 150, 300 V								
Temperature Ratin	g:	60, 80°C								
Flame Rating:		FT1, FT2								
Conductor Size		nimum Average Thickness, Minimum Thickness at mils point, mils						any		
	30V	150V	300V	600V	1000V	30V	150V	300V	600V	1000V
44-10 AWG	9	9	9	_	_	7	7	7	_	_

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DESCRIPTION NO. 4

PRODUCT COVERED:

Appliance Wire, Extruded PVC, Insulated Singles, Class I, Group A, B, or A/B.

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TABLE I

Insulation Materi	al:	PVC			Class	21				
Use Class:		I (Internal)								
Group:		A (Not subject to mechanical abuse)								
		B (Potentially subject to mechanical abuse), or								
		A/B								
Voltage Rating:		30, 150, 300, 600 V								
Temperature Ratin	g:	60, 80, 90, 105°C								
Flame Rating:		FT1, FT2								
	Mi	nimum <i>A</i>	_		kness,	Minimum Thickness at any				any
Conductor Size		mils				point, mils				
	30V	150V	300V	600V	1000V	30V	150V	300V	600V	1000V
44-10 AWG	15	15	15	15	-	13	13	13	13	-
9-2 AWG	30	30	30	30	-	27	27	27	27	-
1-4/0 AWG 80		80	80	80	-	72	72	72	72	-
250-500 kcmil	95	95	95	95	-	86	86	86	86	-
501-1000 kcmil	110	110	110	110	-	99	99	99	99	-
1001-2000 kcmil	125	125	125	125	-	112	112	112	112	-

Covering - Optional. PVC, 10 mils minimum average thickness, 9 mils minimum thickness at any point.

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Temperature Ratin	g:	60, 80, 90, 105°C								
Flame Rating:		FT1, FT2								
	Mi	nimum <i>A</i>	_		kness,	Minimum Thickness at any				any
Conductor Size		mils				point, mils				
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44-10 AWG	15	15	15	15	-	13	13	13	13	-
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1-4/0 AWG 80		80	80	80	-	72	72	72	72	-
250-500 kcmil	95	95	95	95	-	86	86	86	86	-
501-1000 kcmil	110	110	110	110	-	99	99	99	99	-
1001-2000 kcmil	125	125	125	125	-	112	112	112	112	-

Covering - Optional. PVC, 10 mils minimum average thickness, 9 mils minimum thickness at any point.

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New: 2012-04-05

TEST RECORD NO. 3

SAMPLES:

Samples of the PVC Insulated Wire as indicated below and constructed as described herein, were submitted by the manufacturer for examination and test.

- 2) PVC Insulated Wire, Rated 80 deg C and 300 Vac .
- 3) PVC Insulated Wire, Rated 105 deg C and 600 Vac .

3a) PVC Insulated Wire, Rated 105 deg C and 600 Vac, $\,$ with PVC Outer Covering applied $\,$.

GENERAL:

Test results relate only to the items tested.

The following tests were conducted.

Tests		Standard/Section				
Detailed Examination on All	Samples:	CSA C22.2 No. 210-11, Clauses 5.2.2, 6.3, 8.4.				
Physical Properties on All	ysical Properties on All Samples:					
Conductor And Insulation Co Samples 2 and 3:	mpatibility on	CSA C22.2 No. 210-11, Clause 11.2.2.2.				
Deformation Test on All Sam	ples:	CSA C22.2 No. 210-11, Clause 11.7.				
Flexibility And Dielectric Samples 2 and 3:	Strength Test on	CSA C22.2 No. 210-11, Clause 11.10.				
Heat Shock And Dielectric S Samples 2 and 3:	trength Test on	CSA C22.2 No. 210-11, Clause 11.5.				
Heat Shock Test on Sample 3	a:	CSA C22.2 No. 210-11, Clause 11.5.				
Cold Bend And Dielectric St Samples 2 and 3:	rength Test on	CSA C22.2 No. 210-11, Clause 11.6.				

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Tests (cont'd)	Standard/Section (cont'd)
Cold Bend Test on Sample 3a:	CSA C22.2 No. 210-11, Clause 11.6.
Durability Of Ink-Print Test on All Samples:	CSA C22.2 No. 210-11, Clause 11.9.
Slow Compression Test on Samples 2 and 3:	CSA C22.2 No. 210-11, Clause 11.11.
Dielectric Voltage Withstand Test Of Insulation on Samples 2 and 3:	CSA C22.2 No. 210-11, Clause 11.4.1.
FT-2 Horizontal Flame Test on All Samples:	CSA C22.2 No. 210-11, Clause 11.8(b).
FT-1 Flame Test on All Samples:	CSA C22.2 No. 210-11, Clause 11.8(a).

The test methods and results of the above tests have been reviewed and found in accordance with the requirements in Standard for Appliance Wiring Material, CSA C22.2 No. 210-11, Third Edition, Issued October 2011.

Test Record Summary:

The results of this investigation indicate that the products evaluated comply with the applicable requirements in Underwriters Laboratories Inc. Standard for Appliance Wiring Material, CSA C22.2 No. 210-11, Third Edition, Issued October 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.

Test Record by:
Monica Zappa
Engineering Associate

Reviewed by: Jacqueline Carracino Senior Project Engineer