



Type Approval Certificate Extension

This is to certify that Certificate No. 98/60085(E2) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	General Cable Industries, Inc.	
PLACE OF PRODUCTION	1600 West Main Street Willimantic CT 06226-1228 USA	
DESCRIPTION	Control cable - multiconductor; limited smoke (LS) thermoset insulation; thermosetting cross-linked polyolefin sheath (Type L); optional armour with thermosetting cross-linked polyolefin sheath (Type L)	
TYPES	LSX	
APPLICATION	Marine, offshore and industrial.	
SPECIFIED STANDARD	IEEE45: 1998 IEEE1580:2001	
TECHNICAL DETAILS	<u>Conductor size (mm²)</u>	<u>No. of cores</u>
	1.0 (18AWG)	2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61
	1.2 (16AWG)	2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61
	2.1 (14AWG)	2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61
	Rated voltage: 600V Maximum conductor temperature: 90°C	

Certificate No.	98/60085(E3)
Issue Date	2 September 2008
Expiry Date	17 June 2013
Sheet	1 of 2


D.E. Taylor



Lloyd's Register North America, Inc.
1000, South Pine Island Road, Suite #530, Plantation, Florida, 33324, USA

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"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. 98/60086(E3) and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as previous Certificate No. 98/60086(E2) to which this extension should be attached.

Certificate No.	98/60086(E3)
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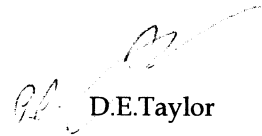
Lloyd's Register

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Lloyd's
Register

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Marine Design Appraisal Document

Lloyd's Register North America, Inc.
Miami Design Support Office
1000 South Pine Island Road
Suite 530
Plantation
Florida 33324, USA

Date
02 September 2008

Quote this reference on all future communications
MDSO/JV/O-8624

LLOYD'S REGISTER TYPE APPROVAL SYSTEM 2002
Issued to: GENERAL CABLE INDUSTRIES, INC.
For: LSX CABLE
TYPE APPROVAL CERTIFICATE NO: 98/60085 (E3)

The undernoted documents have been reviewed for compliance with the requirements of Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document is a supplement to the Certificate.

APPROVAL DOCUMENTATION

Approval Services Request for Quotation – LR 6606NA
MMI0843032 – Inspection and Surveillance of Production Facilities Report

1 May 2008
7 August 2008

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register North America, Inc. reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.


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FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

Lloyd's Register North America, Inc.
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Part 1B

Subject: Electrical Equipment (Not Environmentally Tested)

Product: Cables Control, Telecommunication and Instrumentation (Part 1B)

Producer/Licence No.	Description of Product			Cert. No.								
	Type	Details of Approval	Application		Remarks							
General Cable Industries, Inc. 1600 West Main Street Williamantic CT 06226-1228 USA	LSX	Control cable - multiconductor; limited smoke (LS) thermoset insulation; thermosetting cross-linked polyolefin sheath (Type L); optional armour with thermosetting cross-linked polyolefin sheath (Type L) <table border="0"> <tr> <td><u>Conductor size (mm²)</u></td> <td><u>No. of cores</u></td> </tr> <tr> <td>1.0 (18AWG)</td> <td>2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61</td> </tr> <tr> <td>1.2 (16AWG)</td> <td>2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61</td> </tr> <tr> <td>2.1 (14AWG)</td> <td>2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61</td> </tr> </table> Rated voltage: 600V Maximum conductor temperature: 90°C	<u>Conductor size (mm²)</u>	<u>No. of cores</u>	1.0 (18AWG)	2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61	1.2 (16AWG)	2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61	2.1 (14AWG)	2, 3, 4, 7, 10, 14, 19, 24, 30, 37, 44, 61	Marine, offshore and industrial use.	Expires: 17 June 2013 IEEE45: 1998 IEEE1580:2001
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