



## Type Approval Certificate Extension

This is to certify that Certificate No. 98/60086(E2) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

<b>PRODUCER</b>	General Cable Industries, Inc.	
<b>PLACE OF PRODUCTION</b>	1600 West Main Street Willimantic CT 06226-1228 USA	
<b>DESCRIPTION</b>	Signal cable - twisted pair; limited smoke (LS) thermoset insulation; shielded or unshielded; thermosetting cross-linked polyolefin sheath (Type L); optional armour with thermosetting cross-linked polyolefin sheath (Type L)	
<b>TYPES</b>	LSX	
<b>APPLICATION</b>	Marine, offshore and industrial.	
<b>SPECIFIED STANDARD</b>	IEEE45: 1998 IEEE1580:2001	
<b>TECHNICAL DETAILS</b>	<u>Conductor size (mm<sup>2</sup>)</u>	<u>No. of cores</u>
	0.6 (20AWG)	1 to 22
	1.0 (18AWG)	1 to 22
	1.2 (16AWG)	1 to 22
	Rated voltage: 600V Maximum conductor temperature: 90°C	

Certificate No. 98/60086(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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# 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/DET/O-8625**

**LLOYD'S REGISTER TYPE APPROVAL SYSTEM 2002**  
Issued to: **GENERAL CABLE INDUSTRIES, INC.**  
For: **LSX CABLE**  
**TYPE APPROVAL CERTIFICATE NO: 98/60086 (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

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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	<p>Signal cable - twisted pair; limited smoke (LS) thermoset insulation; shielded or unshielded; thermosetting cross-linked polyolefin sheath (Type L); optional armour with thermosetting cross-linked polyolefin sheath (Type L)</p> <table border="1"> <thead> <tr> <th>Conductor size (mm<sup>2</sup>)</th> <th>No. of cores</th> </tr> </thead> <tbody> <tr> <td>0.6 (20AWG)</td> <td>1 to 22</td> </tr> <tr> <td>1.0 (18AWG)</td> <td>1 to 22</td> </tr> <tr> <td>1.2 (16AWG)</td> <td>1 to 22</td> </tr> </tbody> </table> <p>Rated voltage: 600V Maximum conductor temperature: 90°C</p>	Conductor size (mm <sup>2</sup> )	No. of cores	0.6 (20AWG)	1 to 22	1.0 (18AWG)	1 to 22	1.2 (16AWG)	1 to 22	Marine, offshore and industrial use.	Expires: 17 June 2013 IEEE45: 1998 IEEE1580:2001
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