

Standard Information

Standard Number: UL 1651

Standard Name: Optical Fiber Cable

Standard Edition and Issue Date: 4th Edition Dated May 15, 2015

Date of Previous Revision to Standard: 3rd Edition Revised August 30, 2013

Effective Date of New/Revised Requirements

Effective Date (see Schedule below): **December 9, 2016**

Impact, Overview, Fees and Action Required

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

Overview of Changes (Specific details of new/revised requirements are found in table below):

- Revision to marking requirements.
- Addition of “-LS” cable designation.

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

Schedule: So that production of products bearing Listing Marks will not be interrupted, the following schedule of **approximate** dates has been established to ensure Listing Reports are found compliant by Effective Date:

- March 1, 2016 = 8 Month Report Review – Intertek will review all Reports. Update if compliance is verified or issue Findings Letter/Quote for any re-evaluations needed
- May 2, 2016 = 6 Month Quote Cut-off – Quotes returned for necessary re-evaluations
- October 3, 2016 = 30 Day Warning – Client advised of all non-compliant Reports to be Suspended
- **December 9, 2016** = Effective Date – ATM Suspended for all non-compliant Reports

Fees: An initial review of Listing Report (s) will be covered by a direct billing project and will be invoiced at not more than \$1000 per report.

Client Action Required:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.

Description of New/Revised Technical Requirements

Clause	Verdict	Comment
15	Info	Information on or in the Cable
15.1		<p><i>Additions to existing requirements are <u>underlined</u> below.</i></p> <p>The following information shall appear at the intervals indicated in 13.1 throughout the entire length of the finished cable. Except for (a), the sequence of items is not specified. Other information, where added, shall not confuse or mislead and shall not conflict with these requirements. See 18.1 for date marking.</p> <p>a) CABLE TYPE-LETTER DESIGNATION – Use of the word “Type” is not required:</p> <p>“Type OFNP” and “Type OFCP” for cables that comply with the requirements in this Standard as well as complying with 7.1 and 1.2(a) as to flame propagation and smoke density in the National Fire Protection Association Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces, ANSI/NFPA 262 (plenum flame test). <u>These cables may be marked “FT6”; where used, this marking is to be spaced from the other cable markings required in this paragraph.</u></p> <p>“Type OFNR” and “Type OFCR” for cables that comply with the requirements in this Standard as well as complying with 8.1, 8.2, and 1.2(b) as to flame-propagation characteristics in the Test for Flame Propagation Height of Electrical and Optical-Fiber Cables Installed Vertically in Shafts, UL 1666 (near flame test).</p> <p>“Type OFNG” and “Type OFCG” for cables that comply with the requirements in this Standard as well as complying with 1.2(c) and 9.3.1 as to cable damage in the FT4/IEEE 1202 Type of Flame Exposure (smoke measurements are not applicable) in the Standard for Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables, UL 1685. <u>These cables may be marked “FT4/IEEE 1202” or “FT4”; where used, this marking is to be spaced from the other cable markings required in this paragraph.</u></p> <p>“Type OFN” and “Type OFC” for cables that comply with the requirements in this Standard as well as complying with 1.2(c) and 9.2.1 or 9.3.1 with regard to cable damage in the UL Flame Exposure or FT4/IEEE 1202 Type of Flame Exposure (smoke measurements are not applicable) in the Standard for Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables, UL 1685. <u>Where the vertical-tray flame test with which the cable complies consists of the FT4/IEEE 1202 Type of Flame Exposure, the cable may be marked “FT4/IEEE 1202” or “FT4”; where used, this marking is to be spaced from the other cable markings required in this paragraph.</u></p> <p>b) RESPONSIBLE ORGANIZATION – The name of the cable manufacturer, that manufacturer’s trade name for the cable, or both, or any other appropriate distinctive marking by means of which the organization responsible for the cable is readily identifiable. Where the organization responsible for the cable is different from the</p>

Standards Update Notice (SUN)

Issued: January 29, 2016

Clause	Verdict	Comment
		<p>actual manufacturer, both the responsible organization and the actual manufacturer shall be identified by name or by appropriate coding such as trade name, trademark, or the assigned electrical reference number. It is appropriate to identify the actual manufacturer by the assigned colored marker thread or combination of colored marker threads; however, unless it or they supplement ink printing as stated in 15.3 and 15.4, colored marker thread(s) shall not be used to identify the responsible organization. The meaning of any coded identification shall be made available by the organization responsible for the cable. It is appropriate also to identify a private labeler; the means is not specified. See 15.2 and 15.4.</p> <p>c) The designation "Limited Combustible" for Type OFNP or OFCP plenum cable that complies with the requirements in 12.1. This marking is not required.</p> <p>d) The designation "sun res" or "sunlight resistant" for cable that complies with the sunlight resistance test referenced in 10.1.</p> <p>e) <u>For cables rated over 60°C, the temperature rating shall be stated as °C or C.</u></p> <p>f) <u>For OFN, OFC, OFNG and OFCG cables, the designation "-LS" (signifying "limited smoke") for cables that comply with the fire and smoke requirements in the Standard for Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables, UL 1685. This marking is not required.</u></p>
		<p>CUSTOMERS PLEASE NOTE: This Table and column "Verdict" can be used in determining how your current or future production is or will be in compliance with new/revised requirements.</p>