

# **Standards Update Notice (SUN)**

Issued: November 25, 2015

## **Standard Information**

Standard Number: CSA C22.2 No. 38-14 10<sup>th</sup> Edition Standard Number: UL 44 18<sup>th</sup> Edition Standard Number: NMX-J-451-ANCE 5<sup>th</sup> Edition

Standard Name: Thermoset-insulated wires and cables Standard Issue Date: March 28, 2014 Date of Revisions: March 28, 2014, December 22, 2014

Date of Previous Revisions to Standard: 2010 Version dated September 10, 2010

### **Effective Date of New/Revised Requirements**

Effective Date (see Processing Schedule below): September 20, 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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date of **September 20, 2016** unless the product is found to comply with new/revised requirements.

**Overview of Changes:** Construction and Test requirements revised. Specific details of new/revised requirements are found in table below.

**Processing 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:

- January 20, 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
- March 18, 2016 = 6 Month Quote Cut-off Quotes returned for necessary re-evaluations
- August 19, 2016 = 30 Day Warning Client advised of all non-compliant Reports to be Suspended
- September 20, 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 Intertek Engineer with review of your Certification Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements 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.



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## **Description of New/Revised Technical Requirements**

Clause	Verdict	Comment
4.6	-	Color coding
4.6.1.1	-	Colour of insulated equipment grounding conductor
		The clause has been revised to clarify that in the US and Mexico, the requirement
		applies to 13.3 mm <sub>2</sub> (6 AWG) or smaller.
		In Canada, the requirement applies to 33.6 mm <sub>2</sub> (2 AWG) or smaller.
		The following text was also added, "Regardless of conductor size, if manufacturer
		elects to colour larger conductor sizes, the requirements of 4.6.1.1 and 4.6.1.2 shall
		apply".
5.4	-	Long-term insulation resistance in water
5.4.1.2		Revised to indicate that the method used to calculate the maximum decrease in
		insulation resistance is measured per week and determined from a curve derived from
		the best fit using the method of least squares representing the average of actual
		values.
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5.0		Under subcommittee review to improve narmonization
5.6	-	Capacitance and relative permittivity
5.6.1		Revised to clarify that for composite insulations, compliance shall be based on the
		chiena for other insulations and not CP of CPE which are not used as inner layer of a
5111		EV 2///// 1 (optional)
5.14.4	-	Additions shown as underlined, delations shown with strikeout
5.14.4.1		Additions shown as <u>underlined</u> , deletions shown with <del>strikeout</del> .
		For a range of sizes given size of a finished wire or cable to be marked VM-1, that size
		and 2.08 mm <sub>2</sub> (14 AWG) copper or 3.31 mm <sub>2</sub> (12 AWG) aluminum shall comply with the
		requirements of the horizontal flame test described in Clause 5.14.1 and shall be
		judged capable of not conveying flame along its length or in its vicinity. Compliance
		shall be determined in accordance with the test. FV-2/VW-1, in UL 2556, CSA C22.2
		No. 2556. or NMX-J-192-ANCE. If any specimen shows more than 25 percent of the
		indicator flag burned away or charred (soot that can be removed with a cloth or the
		fingers and brown scorching area shall be ignored) after any of the five applications of
		flame, the wire or cable shall be judged capable of conveying flame along its length. If
		any specimen emits flaming or glowing particles or flaming drops at any time that ignite
		the cotton on the burner, wedge, or floor of the enclosure (flameless charring of the
		cotton shall be ignored), the wire or cable shall be judged capable of conveying flame
		to combustible materials in its vicinity. If any specimen continues to flame longer than
		60 s after any application of the gas flame, the wire or cable shall be judged capable of
		conveying flame to combustible materials in its vicinity.



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5.15	-	Weather (sunlight) resistance (optional)
5.15.1		The weather resistance requirement has been revised such that in the United States and Mexico, to be marked SR, materials shall retain 80 percent of their initial tensile strength and elongation values after being subjected to 720 h xenon or carbon arc exposure.*
		In Canada, to be marked SR, unfilled XL material shall contain a minimum of 2.0 percent carbon black.
		* Submittal required for types XHH, XHHW, XHHW-2, RHW, RHW-2, and RHH.
5.15.2		Revised to indicate that in the US, XL material containing a minimum of 2.0 percent carbon black measured to a depth of at least 0.76 mm (0.030 in) need not be tested in accordance with cl. 5.15.1.*
		In Canada, to be marked SR, materials other than unfilled XL shall retain 80% of their initial tensile strength and elongation values after being subjected to 720 h of xenon arc or carbon arc exposure.
		This requirement does not apply in Mexico.
		*Submittal required for types XHH, XHHW, XHHW-2, RHW, RHW-2, and RHH.
5.20	-	Durability of ink printing
5.20.1		Revised to indicate that the temperature and time for the conditioning is as indicated in Table 11 for the insulation and Table 20 for the jacket.
7.3	-	Markings
7.3.1.1.h) and 7.3.2 i)		Revised to permit the maximum operating dry and wet temperature rating of the insulation to be marked on the product and package.
7.4	-	Tests
7.4.2		Revised to indicate that flat assemblies are immersed for 6 hours and twisted assemblies for 1 hour.
7.4.3		Revised such that, a cabled assembly with Types RWU75 or RWU90 conductors are tested individually.
Table 9		The values in columns C and D in the 2010 edition were not correct and do not correspond with the conductor sizes. This table had been replaced with the requirements of Table 8 in C22.2 No. 75 to be also consistent with C22.2 No. 75.
		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 the new/revised requirements.