

STANDARD INFORMATION

Standard: UL 1277

Standard ID: Electrical Power and Control Tray Cables with Optional-Fiber Members [UL 1277:2018 Ed.6+R:11Jul2021]

Previous Standard ID: Electrical Power and Control Tray Cables with Optional-Fiber Members [UL 1277:2018 Ed.6+R:12Apr2021]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **July 11, 2023**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes: Addition of requirements for EVA-based Jacket Compounds. Specific details of new/revise requirements are found in table below.

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.



STANDARD INFORMATION

CLAUSE **VERDICT** **COMMENT**

Additions to existing requirements are underlined and deletions are shown ~~lined out~~ below.

12	Info	Overall Jacket
12.2	Info	Properties

Overall jacket

Table 12.1

Table of applicable physical properties of UL 1581 ^a								
Jacket material ^a	200°C (392°F) dry cables	150°C (302°F) dry cables	125°C (257°F) dry cables	90°C (194°F) wet or dry cables; 90°C (194°F) dry cables; 90°C (194°F) dry, and 75°C (167°F) wet cables		75°C (167°F) dry cables and 75°C (167°F) wet or dry cables		60°C (140°F) dry cables and 60°C (140°F) wet or dry cable
	Required 200°C (392°F) jacket	Required 150°C (302°F) jacket	Required 125°C (257°F) jacket	Optional 90°C (194°F) jacket	Required 75°C (167°F) jacket	Optional 75°C (167°F) jacket	Required 60°C (140°F) jacket	Required 60°C (140°F) jacket
EVA	=	=	=	<u>50.247</u>	<u>50.246</u>	<u>50.246</u>	<u>50.246</u>	<u>50.246</u>

Note: Only modified sections of the table are shown.

21	Info	Deformation Test of Overall Thermoplastic or XL Jacket
21.1		Specimens of a thermoplastic or XL overall jacket taken from the finished cable shall not decrease more in thickness than the percentage indicated for the jacket material in Table 21.1 under the load indicated in Table 21.1 while being maintained at a temperature of 100.0 ±1.0°C (212.0 ±1.8°F) for HDLRPE, LDHRPE, and <u>EVA</u> , 150.0 ±1.0°C (302.0 ±1.8°F) for TPE, and 121.0 ±1.0°C (249.8 ±1.8°F) for all other materials. The test is to be made as described under Deformation in the test, Dry temperature rating of new materials (long-term aging test), in UL 2556.

Load and decrease in thickness for deformation test

Table 21.1

Jacket material	Maximum decrease in thickness in percent	Load exerted on specimen by presser foot	
		gf	N
<u>EVA</u>	<u>50</u>	<u>2000</u>	<u>19.61</u>

Note: Only modified sections of the table are shown.



CLAUSE	VERDICT	COMMENT
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22	Info	Heat Shock Test of Overall Thermoplastic Jacket
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22.1		An overall jacket of thermoplastic CPE, ETFE, FEP, PFA, PVC, PVDF, LDFRPE, HDFRPE, TPE, TPU, or EVA shall not show any cracks either on the surface or internally after a specimen of the complete, finished cable is wound around a mandrel and is then subjected for 1 h to the temperature indicated in Table 22.1. The test is to be made as described in 22.2.
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Air temperature for heat shock test

	Jacket material	Forced air-circulating oven temperature
Table 22.1	CPE, PVC, TPU, HDFRPE, LDFRPE, <u>EVA</u>	121.0 ±1.0°C (249.8 ±1.8°F)
	TPE	150.0 ±1.0°C (302.0 ±1.8°F)
	ETFE	180.0 ±1.0°C (365.0 ±1.8°F)
	FEP, PFA, PVDF	250.0 ±1.8°C (482.0 ±1.8°F)