

CTL Provisional DECISION SHEET (PDSH)

Standard(s) (incl. year)	Subclause(s)	Tracking No.	Publication date
IEC 60335-2-23: 2016 + A1:2019	Clause 25.7	2252	2024
Category			
HOUS			
Subject	Keywords	Developed by	To be approved
Type of power cord used for hair straighteners and curlers which exceed the 130 K limit.	Type of power cord used for hair straighteners and curlers	ETF 1	2025 CTL Plenary Meeting
Question			
<p>Clause 25.7 states: “The temperature rise limit of 75 K is increased to 130 K provided that the temperature rise decreases to 75 K within 5 min of the appliance being switched off.” It is generally known that PVC power cords cannot be used if they are not in compliance with this subclause.</p> <p>However, IEC 60335-1 does prescribe which type of power cord can be used. Usually, cord types H05RR-F or H05RN-F are used. The T-rating of the PVC cable is T70 degrees, but the T value of the rubber cable is only T60 degrees.</p> <p>Question #1: Which of the following two options may be used?</p> <ol style="list-style-type: none"> 1) Select the rubber cables of H05RR-F (T60°C, 60245 IEC 53 / EN 50525-2-21) or H05RN-F (T60°C, 60245 IEC 57 / EN 50525-2-21). 2) Select the heat resistant PVC cables of H03V2 V2-F (T90°C, 60227 IEC 56) or H05V2V2-F (T90°C, 60227 IEC 57). <p>Question #2: Can an approved power cord 03RNH2-F which is certified according to EN 50525-2-21 be used on products such as hair straighteners and curlers which exceed the limitation of 130K?</p>			
Decision			
<p>Question #1: The restriction regarding cords that may touch hot metal parts in clause 25.7 of IEC 60335-1 (modified in IEC 60335-2-23: 2016+A1:2019) only relates to polyvinyl sheathed cords (60227 IEC 52 and 60227 IEC 53).</p> <p>Therefore, as the standard is written, all other cord types which are allowed according to clause 25.7 of IEC 60335-1 may be generally used.</p> <p>Question #2: Since the text of clause 25.7 of IEC 60335-1 refers to the minimum properties to be found in the supply cords, the cord types and denominations used in Europe in accordance with the EN 50525 series can only be used if they meet the equivalent sheath type properties of one of those indicated in clause 25.7.</p>			
Explanatory notes			
<p>The T-ratings (T70 for PVC, T60 for rubber) are related to a safe long-term use of the cords with these temperatures and not to a short touch of the cord.</p>			