



FOR BIS USE ONLY

BUREAU OF INDIAN STANDARDS

MINUTES

Name of the Committee	No. of Meeting	Day	Date	Time	Venue
Electrical Appliances Sectional Committee, ETD 32	39 th	Thursday	07/07/2022	11.00h	Online

CHAIRMAN: Shri A K Rajput

MEMBER SECRETARY: Shri Sreejith Mohan J

Members present:

Sl. No.	Name	Organization
1	Shri A K Rajput	Central Electricity Authority
2	Shri Rohit	Bajaj Electrical Ltd
3	Ms. Disha Patil	Bajaj Electrical Ltd
4	Shri Abhinandan	Bajaj Electrical Ltd
5	Shri Socratees Chandrasekaran	Bajaj Electrical Ltd
6	Shri Prasad Patade	Bajaj Electrical Ltd
7	Shri Balasubramanian Anand	BSH Household Appliances Manufacturing Private Limited, Chennai
8	Shri Vijay Kumar	BSH Household Appliances Manufacturing Private Limited, Chennai
9	Ms. Shweta Mahajan	CERC, Ahmedabad
10	Shri Venkatesh D	CPRI, Bangalore
11	Shri Sekh faridi	Dyson Technology India Pvt Ltd, Gurugram
12	Shri Rakesh Patel	ERDA, Vadodara
13	Shri Debtosh Ganguly	Havells India Ltd
14	Shri P. K Mukherjee	Individual capacity
15	Shri Vivek Sharma	Philips India Limited, Gurugram
16	Shri Abhijit Banshelkikar	Racold Thermo Limited , Pune
17	Shri Ravindra Patel	Racold Thermo Limited , Pune
18	Shri Ezhilarasan	Venus home appliances
19	Shri S.Sujatha	Venus home appliances
20	Ms. Priti Bhatnagar	BIS
21	Shri Sreejith Mohan J	BIS

Item 0 WELCOME AND OPENING REMARKS

0.1 The Chairman, Shri A K Rajput welcomed all the members present to the meeting. He emphasised the need to take up the old standards for revision and appreciated active participation from members. He solicited the co-operation of the members for completing the agenda in time.

The member secretary welcomed the members present to the meeting and wished for a fruitful



discussion of all agenda points. The meeting started with a brief introduction of the members of the committee.

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

- 1.1 There being no comments, the committee formally confirmed the minutes of the last meeting (38th meeting) of Electrical Appliances Sectional Committee, ETD 32 held on 28 July 2021.

Item 2 SCOPE AND COMPOSITION OF ELECTRICAL APPLIANCES SECTIONAL COMMITTEE, ETD 32

- 2.1 The members reviewed the composition of the committee given in the Agenda.
- 2.2 It was decided to drop SS Enterprises, Mumbai from the committee due to no participation and to seek revised nominations from Whirlpool corporation, Gurugram.

Item 3 APPROVALS OF DRAFT INDIAN STANDARDS FOR FINALIZATION

Sl. No.	Doc No	TITLE	Decision taken
1	ETD 32 (17877) (IS 302-2-2)	Safety of Household And Similar Electrical Appliances Part 2 Particular Requirements Section 2 Vacuum Cleaners And Water-Suction Cleaning Appliances	It was decided to finalize the document for printing as no comments were received.
2	ETD 32 (17858) (IS 302-2-4)	Safety of Household And Similar Electrical Appliances Part 2 Particular Requirements Section 4 Spin Extractors	
3	ETD 32 (17880) (IS 302-2-7)	Safety of Household And Similar Electrical Appliances Part 2 Particular Requirements Section 7 Domestic Electric Clothes Washing Machines	
4	ETD 32 (17878) (IS 302-2-6)	Safety of Household And Similar Electrical Appliances Part 2 Particular Requirements Section 6 Cooking Ranges Hobs Ovens and Similar Appliances	Decision taken with reference to comments received is placed at Annex-1 . It was decided to finalize the document for printing as no technical changes were made in the document.
5	ETD 32 (17884) (IS 302-2-15)	Safety of Household And Similar Electrical Appliances Part 2 Particular Requirements Section 15 Appliances for Heating Liquids	Committee discussed the comment received on the document and the proposal made in the comment was not agreed to by the committee. It was decided to finalize the document for printing.
6	ETD 32 (17882) (IS 302-2-9)	Safety of household and similar electrical appliances part 2 particular requirements section 9 particular requirements for grills toasters and similar portable cooking appliances	Committee discussed the comments received on the document and the proposals made in the comments were not agreed to by the committee. It was decided to finalize the document for printing.
7.	ETD 32 (16833)	Domestic electric clothes washing machines for	The committee noted the changes



SI. No.	Doc No	TITLE	Decision taken
	(IEC 60456)	household use specification	proposed by the panel constituted during its last meeting. The committee discussed the same and decisions taken are placed at Annex 2 . It was decided to wide-circulate the document incorporating the decisions of committee for a period of 15 days and to finalize the document for printing, with approval of chairman, in the absence of any technical comments during wide-circulation.
8.	ETD 32 (16992)	Household electric cooking appliances performance requirements of electric hobs	The committee discussed the comments received on the document. The committee discussed the same and decisions taken are placed at Annex 3 . It was decided to wide-circulate the document incorporating the decisions of committee for a period of 15 days and to finalize the document for printing, with approval of chairman, in the absence of any technical comments during wide-circulation

3.2 Approval of draft amendments for finalization

SI. No.	Doc No	TITLE	Decision taken
1	ETD 32 (17945) (IS 374)	Specification for electric ceiling type fans and regulators (Third Revision) Amendment - 1	Committee considered the draft amendment put up by the panel and it was decided to finalize the document for printing.
2	ETD 32 (17946) (IS 302-2-80)	Safety of Household and similar electrical appliances - Safety: Part 2 - 80 particular requirements for fans (First Revision) Amendment - 1	It was decided to finalize the document for printing as no comments were received.
3	ETD 32 (19649) (IS 302-2-30)	Safety of household and similar electrical appliances: Part 2 particular requirements: Sec 30 room heaters (First Revision) Amendment - 3	It was decided to finalize the document for printing as no comments were received.

Item 4 DRAFTS UNDER PREPARATION

4.1 Draft standard of IS 4250

Committee noted the information provided in the agenda.

Item 5 COMMENTS ON PUBLISHED STANDARDS

5.1 IS 302-2-24: 1994 Safety of household and similar electrical appliances Part 2 particular requirements Sec 24 refrigerators food - Freezers and ice – Makers

The committee discussed regarding the standard and it was decided to request Refrigeration and Air Conditioning sectional committee, MED 3 sectional committee to take up the revision of the above standard.

5.2 IS 2082: 2018: Stationery storage type electric water heaters

The committee discussed regarding the agenda points w.r.t IS 2082: 2018 and it was decided to take up the standard for revision with inclusion of new testing methodology proposed by BEE along with active power requirements.

The committee requested Shri. Socratees Chandrasekharan, Bajaj Electrical Ltd to prepare the draft revision document, in consultation with the representatives of Racold, Philips, Havells & Venus Home appliances and submit the same to BIS by 31 August 2022.

Item 6 NEW SUBJECTS

6.1 Adoption of IEC 63008: 2020 'Household and similar electrical appliances – Accessibility of control elements, doors, lids, drawers and handles'

The committee discussed regarding the IEC standard. It was decided to adopt the above IEC standard and to wide- circulate the same for a period of 30 days.

Item 7 DATE AND PLACE FOR THE NEXT MEETING

The date of place of the next meeting shall be decided in consultation with the chairman tentatively in the month of November 2022.

Item 8 ANY OTHER BUSINESS


8.1 Shri P. K. Mukherjee informed the committee that no Indian Standard exist for safety and performance of Dishwashers and IEC standard exists for the same. The committee requested Shri. Balasubramanian Anand, BSH Household Appliances Manufacturing Private Limited, Chennai to prepare the draft for safety and performance of Dishwashers and to submit the same to BIS.

There being no further business, the meeting ended with a vote of thanks to the chair.



Annex-1

Title of the Document: Safety of Household and Similar Electrical Appliances Part 2 Particular Requirements Section 2- 6 – Cooking Ranges, Hobs, Ovens and Similar Appliances

Sl. No	Name of the Organization	Clause/ Sub-clause	Paragraph/ Figure/ Table	Type of Comment (General/ Technical/ Editorial)	Comments	Proposed Change	Decision taken
1	Bajaj Electricals Ltd., Mumbai	3.1.9 Normal operation 3.1.9.101	Fourth	Technical – Thermal controls are adjusted to highest setting until oil temperature reaches $180^{\circ}\text{C} \pm 4^{\circ}\text{C}$ and then adjusted so that this temperature is maintained.	It is difficult to maintain the Oil temperature within the specified range of $180^{\circ}\text{C} \pm 4^{\circ}\text{C}$	To increase tolerance to $\pm 10^{\circ}\text{C}$	Committee did not agree to the changes proposed.
2		7.6	First	Technical – ON/OFF symbol specified is incorrect	To correct the ON/OFF symbol, as shown aside		
3		11.4	First	Technical – Input norms for Induction hob elements not specified.	It is stated for Cooking ranges as 1.15 times not given for Induction hob/hotplates.	To specify Input norms for Induction hob/hot plate elements	
4		21.102	Fourth	Technical – Stress test with 1.8 kgs for 10 times from a height of 150 mm	This test is too severe for Induction hob cooking zone	To dilute the norms	
5		24.1.4 a.2)	First	Technical –For manual action 10000	Does 10000 cycles apply for the On/Off switch of hob (tactile and capacitive)?	To clarify.	
6		19.102	--	Technical - The temperature rise of the oil shall not exceed 270 K.	We propose to use Sunflower/Peanut/Ground nut/Arachis oil, as different oils give different results depending on its properties.	To specify type /grade of oil.	It was decided to specify the use of mustard oil as per IS IS 546: 2014 for the test.



Annex -2

Title of the Document: Domestic electric clothes washing machines for household use specification (IS 14155)

Sl. No	Clause/ Sub-clause	Paragraph/ Figure / Table	Current clause	Modified clause	Decision taken
1	cl.5.4.7	Last	Precautions should be initiated to avoid temperature differences between calibration and measurement phase (optimal: 23°C). The stirring rate should also be kept equal for calibration and measurement phase. For calibration follow the instruction manual of your pH meter.	Precautions should be initiated to avoid temperature differences between calibration and measurement phase (optimal: 27°C). The stirring rate should also be kept equal for calibration and measurement phase. For calibration follow the instruction manual of your pH meter.	Committee agreed to the change proposed.
2	cl. 13		The appliance shall comply with the safety requirements specified in 8 to 32 of IS 302-2-7 before they are subjected to all the tests specified in standard.	The washing machine shall comply with the safety requirements specified in 8 to 32 of IS 302-2-7 before they are subjected to all the tests specified in standard. Spin extractors incorporated in electric washing machines shall comply with the safety requirements specified in IS 302-2-4.	Committee agreed to the change proposed.
3	cl.9		Performance requirements for Wash performance, Water extraction performance and Rinse Performance may be incorporated in the standard in line with BEE labelling standard.	Front Loaders: Wash Performance (Soil Removal %) $\geq 95\%$ Water extraction performance (RMC value) $\leq 75\%$ Water consumption (maximum) ≤ 9 L/kg/cycle Rinse Performance ≤ 2.25 Semi-automatic and top loaders: Wash Performance (Soil Removal %) $\geq 80\%$ Water extraction performance (RMC value) $\leq 75\%$ Water consumption (maximum) ≤ 23 L/kg/cycle Rinse efficiency ≤ 2.25	Committee agreed to the change proposed.
4	cl.9.5		Energy consumption requirements are being revised by BEE wef 01 January 2023. In view of above, revised requirements of energy consumption may be incorporated in the draft standard.	Minimum energy Consumption (E) per cycle (kWh/kg/cycle) for Top Loaders & Semi-Automatic Machines – Cotton 30°C shall be 0.0145 kWh/kg/cycle and Front Loaders (drum type) – Cotton 60°C shall be 0.14	Committee agreed to the change proposed.



Annex-3

Title of the Document: HOUSEHOLD ELECTRIC COOKING APPLIANCES PERFORMANCE REQUIREMENTS OF ELECTRIC HOBS (16992)

Sl. No	Name of the Organization	Clause/ Sub-Clause	Paragraph/ Figure/Table	Type of Comment	Comments	Proposed Change	Decision taken
1	Dyson	6.1, 6.3 Table 1	5	Editorial	The absolute air pressure shall be between 913 hPa and 1 063 hPa. hPa seems to be a typo mistake	replace hPa by kPa	Committee did not agree to the change proposed.
2	Dyson	14.2 d and f		Editorial	d) Insulation resistance and leakage current at operating temperature - 13 of IS 302-2-6 f) Insulating resistance and electric strength (After humidity treatment) - 16 of IS 302-2-6	clause 13 and 16 of IS 302-2-6 does not address insulation resistance	Committee agreed to the change proposed. It was decided to modify the same to d) Leakage current and Electric strength at operating temperature - 13 of IS 302-2-6 f) Leakage current and Electric strength - 16 of IS 302-2-6
3	Bajaj Electricals Ltd.	8.1	Paragraph 3	Editorial	Typo error i.e. mentioned describe in 0	It should be mentioned describe in Annex A	Typographical error to be corrected.
4		8.5.2.2	Note	Editorial	Typo error i.e. mentioned (see 0)	It should be mentioned see (Annex B)	
5		9.1.3	Paragraph 1	Editorial	Error! reference source not found mentioned	Reference source should be Clause 6.3	
6		9.1.4	Paragraph 4	Editorial	Typo error i.e. mentioned given in 0	It should be mentioned given in Annex G	
7		11.1	Paragraph 1	Technical	Temperature critical limits are not mentioned, or no reference given.	Temperature limit on Cooking Zone 250°C + 10°C	
8	11.2	Paragraph 1	Editorial	Error reference source not found mentioned	Reference source should be clause 6.6.2	Typographical error to be corrected.	
9		Table 6	Paragraph 3,6, 7	Technical	Current Oil temperature 180°C +/- 5°C	Proposal - Oil temperature 180°C +/- 10°C, wherever applicable.	Committee did not agree to the change proposed.
10		New	New	Technical	Only E hob value there & Thermal Efficiency Procedure not available	Thermal Efficiency Procedure Shall be added.	Committee agreed to the change proposed.
11				Technical	Performance requirements for Energy consumption and Heating time, Standby power may be incorporated in the draft standard in line with the BEE labelling standard.		Committee agreed to the change proposed and requested Shri. P K Mukherjee to incorporate the performance requirements in the draft document.
12				Technical	Passing criteria may be defined for a) 7.4 Level of Solid Hotplates b) 7.5 Distance Between Cooking Zones c) 8.6 Heating up time d) 9 ABILITY TO CONTROL THE TEMPERATURE OF A LOAD e) 14 SPILLAGE CAPACITY OF HOBS		