	भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS
	(PETROLEUM, COAL & RELATED PRODUCTS DEPTT.)
MINUTES	
Rubber and Rubber Products Sectional Committee, PCD 13	**33rd Meeting**
DATE & TIME	Friday, 09 December 2022, 1000h
VENUE	Virtual
CHAIRMAN:	**Dr. Siby Varghese**, Director (Research), Rubber Board
MEMBER SECRETARY	**Shri Vijay Kumar Gupta,** Scientist 'D' (PCD), BIS E-mail: pcd13@bis.gov.in; pcd@bis.gov.in

ITEM 1 OPENING OF THE MEETING

1.1 Welcome by Bureau of Indian Standards

On behalf of Bureau of Indian Standards, Shri Vijay Kumar Gupta, Sc-D (PCD) welcomed Dr. Siby Varghese, Chairman, PCD 13 and all the members present. He requested the members to actively participate in the deliberations.

1.2 Opening Remarks by the Chairman

Dr. Siby Varghese, Chairman, PCD 13 welcomed all the members of the Committee. He requested the members for their active participation for formulation of new standards and revision of existing Indian Standards for the benefit of consumers.

ITEM 2 CONFIRMATION OF THE MINUTES OF THE 32nd MEETING

2.1 The Committee CONSIDERED Item 2.1 of the Agenda that no comments have been received on the Minutes of the 32nd meeting of PCD 13 and CONFIRMED the Minutes as circulated.

ITEM 3 SCOPE AND COMPOSITION OF THE COMMITTEE

3.1 The Committee NOTED the information as given under Item 3.1 of the Agenda.

3.2 The Committee NOTED the information as given under Item 3.2 of the Agenda.

3.3 Request of representation in Sectional Committee and Subcommittees

3.3.1 The Committee DECIDED to Co-opt M/s Vansh Industries for their representation in Hose Subcommittee (PCD 13:3).

The Committee also Co-opted APCOTEX in Sectional Committee of PCD 13 and M/s Polyhouse India (Rubber) Pvt. Ltd. in PCD 13:3 Hose Subcommittee.

3.4 Transfer of Indian Standards on fabrics from PCD to TXD

3.4.1 The Committee CONSIDERED Item 3.4.1 of the Agenda and DECIDED:

i) To transfer the Indian Standards on coated fabrics to TXD, which are listed below;

ii) To delete 'Coated fabrics' from the scope of PCD 13; and

iii) To dissolve the Subcommittee PCD 13:9 Coated Fabrics.

The Committee further requested TXD to Co-opt the members of this subcommittee, in the concerned Sectional Committee/Subcommittee of TXD. The Committee also requested TXD to nominate the experts in ISO/TC 45/ SC 4 and ISO/TC 45/ SC 4/ WG 13 for the standardization work of ISO on coated fabrics.

Sl No.	**IS No.**	**Title**	**Proposed TXD Committee**
1.	IS 1001 : 1991	Synthetic rubber proofed coated fuel pump diaphragm fabric —specification (First Revision)	Industrial Fabrics Sectional Committee TXD 33
2.	IS 1259 : 1984	Specification for vinyl coated fabrics (Third Revision)	-do-
3.	IS 2037 : 1986	Specification for tracing cloth (First Revision)	-do-
4.	IS 2089 : 1977	Specification for common proofed canvas /duck and paulins (Tarpaulins) (Second Revision)	-do-
5.	IS 2244 : 1972	Glossary of terms relating to treated fabrics (First Revision)	-do-
6.	IS 2789 : 1972	Specification for special proofed paulins Tarpaulins (First Revision)	-do-
7.	IS 3322 : Part 1 : 1987 ISO 8096/1	Specification for water - Resistant clothing Part 1PVC - Coated fabrics (First Revision)	-do-
8.	IS 3768 : 1996	Ventilation ducting - Vinyl coated flexible and semi - Rigid — Specification (Second Revision)	-do-
9.	IS 4501 : 1981	Specification for aprons rubberized acid and alkali resistant (First Revision)	-do-
10.	IS 4810 : 1968	Specification for fumigation sheets and covers rubberized	-do-
11.	IS 5915 : 1970	Specification for single texture rubberized waterproof fabrics	-do-
12.	IS 6110 : 1983	Specification for double - Texture rubberised waterproof fabrics (First Revision)	-do-
13.	IS 8164 : 1976	Specification for hospital rubber sheeting without reinforcing fabric	Technical Textiles for Medtech Application Sectional Committee

			TXD 36
14.	IS 8698 : 1984	Specification for expanded vinyl coated fabrics (First Revision)	Industrial Fabrics Sectional Committee TXD 33
15.	IS 8699 : 1977	Specification for PVC coated fabrics for footwear industry	-do-
16.	IS 9481 : 1980	Specification for pillows, air	Technical Textiles for Clothtech Applications including Narrow Fabrics and Braids Sectional Committee, TXD 39
17.	IS 9491 : 1980	Specification for mattress, air	-do-
18.	IS 10228 : 1982	Specification for school bag	Made-up Textiles (including Ready-made Garments) Sectional Committee TXD 20
19.	IS 11884 : 1986	Specification for fire - Resistant brattice sheeting made from unsupported plastics	Textiles Protective Clothing Sectional Committee, TXD 32
20.	IS 12649 : 1989	Treated coated fabrics for various applications - Guide for selection	Industrial Fabrics Sectional Committee TXD 33
21.	IS 14597 : 1998	Synthetic tarpaulins Heavy Duty Protective Covers made from coated nylon or polyester fabrics -Specification	-do-

ITEM 4 REVIEW/REAFFIRMATION OF PRE-2018 STANDARDS

The Committee NOTED the information that no Indian Standards are due for reaffirmation as given under Item 4 of the Agenda.

ITEM 5 REVISION OF PRE-2000 INDIAN STANDARDS

5.1 The Committee NOTED that BIS Management has decided to revise all the Indian Standards published before 2000. Total 87 standards of this Committee comes under pre-2000 category and target for the revision in 2022-23 is 30. The Committee also NOTED that this Committee has already initiated the process of the revision. 17 standards were reviewed out of which 05 published, 02 decided to withdrawn, 01 transferred to TXD and 09 were issued into Wide Circulation.

5.2 The Committee deliberated on the status of the Pre-2000 standards. The decision/recommendations of the Committee are as follows:

SI. No.	IS No. & Title	Status/ Work progress	Decision/Recommendations of the Committee
1	IS 447: 1988 Specification for rubber hose for welding	Under Certification Scheme of BIS. Allotted to Shri Sushant Kumar for providing draft revision **under ARP**. **Timeline:** 31 March 2023.	The Committee NOTED the timeline for providing the ARP and decided to review after its submission.
2	IS 635: 1982 Specification for oil and solvent resistant hose of rubber	Allotted to Ms. Techano C. Ovung for providing draft revision **under ARP**. **Timeline:** 30 June 2022.	Decided to issue into Wide Circulation. Please see Item 5.3.2 of the Minutes.
3	IS 1867: 1975 Specification for rubber hot water bottles	Allotted to Shri Virendra Singh for providing draft revision **under ARP**. **Timeline:** 30 Sept 2022.	Decided to issue into Wide Circulation. Please see Item 5.3.1 of the Minutes.
4	IS 4135: 1974 Specification for hospital rubber sheetings	Allotted to Shri Virendra Singh for providing draft revision **under ARP**. During the 32nd meeting, Shri Padmesh Jain, fulflex informed the Committee that he will provide draft revision of the standard. **Timeline:** 31 Dec 2022.	The Committee NOTED the timeline for providing the ARP and decided to review after its submission.
5	IS 4149: 1967 Specification for post - Mortem rubber gloves	Allotted to Shri Virendra Singh for providing draft revision **under ARP**. The inputs as received from Shri Philip C Jacob were forwarded to Shri Virendra Singh for its review. **Timeline:** 31 March 2023.	The Committee NOTED the timeline for providing the ARP and decided to review after its submission.
6	IS 8891: 1978 Specification for pine tar for rubber industry	Allotted to Shri Chandrakesh Singh for providing draft revision **under ARP**. **Timeline:** 30 Sept 2022. **Status:** Awaited	The Committee NOTED the timeline for providing the ARP and decided to review after its submission.
7	IS 12076: 1986 Specification for precipitated silica for rubber industry	Allotted to Shri Chandrakesh Singh for providing draft revision **under ARP**.	The Committee NOTED the timeline for providing the ARP and decided to review after its submission.

		Timeline: 31 Dec 2022.	
8	IS 14127: 1995 Insoluble Amorphous sulphur for rubber industry – Specification	Allotted to Shri Chandrakesh Singh for providing draft revision **under ARP**. **Timeline:** 31 March 2023.	The Committee NOTED the timeline for providing the ARP and decided to review after its submission.
9	IS 638: 1979 Specification for sheet rubber jointing and rubber insertion jointing	Under Certification Scheme of BIS. Allotted to Shri Virendra Singh for providing draft revision **under ARP**.	Decided to issue into Wide Circulation. Please see Item 5.3.3 of the Minutes.
10	IS 9406: 1980 Specification for calcium silicate for rubber industry	Allotted to Ms Archana Gautam for providing draft revision **under ARP**.	Decided to issue into Wide Circulation. Please see Item 5.3.4 of the Minutes.
11	IS 5137: 1990 Rubber hose for cement grouting specification	Contact details were provided by AIRIA. **Email sent on 26/10/2022 for seeking inputs.** **Status:** Inputs received from Shri D. Prassana, M/s Polyhouse India (Rubber) Pvt. Ltd., Tamilnadu. Vide email dated 10/11/2022, he has informed that there is no need of changes.	**Sl No. 11, 12 and 13:** The Committee NOTED the received inputs and DECIDED to revise the standard by updating the cross referred standards. Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.
12	IS 10733: 1983 Specification for electrically bonded road and rail tanker hose of rubber resistant to petroleum products	Contact details were provided by AIRIA. **Email sent on 26/10/2022 for seeking inputs.** **Status:** Inputs received from Shri D. Prassana, M/s Polyhouse India (Rubber) Pvt. Ltd., Tamilnadu. Vide email dated 10/11/2022, he has informed that there is no need of changes.	
13	IS 13071: 1991 Rubber hose wire reinforced for sand and gravel suction and discharge services – Specification	Contact details were provided by AIRIA. **Email sent on 26/10/2022 for seeking inputs.** **Status:** Inputs received from Shri D. Prassana, M/s	

		Polyhouse India (Rubber) Pvt. Ltd., Tamilnadu. Vide email dated 10/11/2022, he has informed that there is no need of changes.	
14	IS 2482: 1990 Light duty water suction hose of rubber – Specification	IS 2482:1990 and IS 3549: 2017 were formulated based on ISO 4641. IS 3549:2017 is under BIS Certification Scheme of BIS and currently 02 licences are operative. During the 32nd meeting, the Committee requested BIS Sectt. to take inputs of the licencee for the withdrawal of IS 2482:1990. Inputs awaited.	The Committee NOTED that two standards are available on same ISO i.e. ISO 4641. Further, the varieties given in IS 2482:1990 already covered under IS 3549:2017. After detailed deliberations, the Committee DECIDED to WITHDRAW IS 2482:1990.
15	IS 4770: 1991 Rubber gloves - Electrical purposes – Specification	As per the decision of the Committee during the last meeting, views of ETD have been taken. Further, IS 13774:2021 Gloves and mitts of insulating materials for live working is published by ETD, which also prescribes the requirements of gloves. Vide email dated 28/10/2022, ETD informed that IS 13774 gives all the required test requirements for electrical insulating gloves and mitts.	The Committee NOTED that two standards are available on same subject and standard published by ETD is the latest version. After detailed deliberations, the Committee DECIDED to WITHDRAW IS 4770:1991.
16	IS 6058: 1970 Specification for rubber components for transfusion fluid bottles	Further, IS 9824 (Part 1):1996 Transfusion equipment for medical use, Part 1: Glass transfusion bottle, closures and caps also available on the subject published by MHD, BIS. Email sent on 10/11/2022 to MHD for seeking their inputs for the withdrawal/revision of the standard. **Status:** Inputs awaited.	The Committee NOTED the information and requested BIS Sectt. to put up the inputs of MHD in the next meeting for deliberations on the revision/withdrawal of the standard.
17	IS 5821: 1986 Specification for hot - Water hose of rubber	During the 32nd meeting, the members informed that the product was being used in the locomotive engines. They	Decided to issue into Wide Circulation. Please see Item 5.2.1.

		further suggested that RDSO, Lucknow may be contacted for the inputs on the uses of the products.	
18	IS 12844: 1989 Vinyl pyridine latex – Specification	Allotted to Dr S V Govindaraju, APCOTEX. Inputs received from Dr S V Govindaraju. **Email sent on 26/10/2022 for providing inputs on the observations of BIS Sectt.**	Dr. S. V. Govindaraju, APCOTEX informed the Committee that he has provided inputs today by email. The Committee requested BIS Sectt. to prepare draft revision in consultation with APCOTEX and issue it into Wide Circulation for two-month time.
19	IS 637: 1994 Rubber tubings for general purposes – Specification		The Committee DECIDED to revise the standard by updating the cross referred standards. Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.
20	IS 5190: 1993 Code of packaging of natural rubber latex in drums		The Committee referred this standard for providing draft revision to the Panel created for the revision of IS 11001:1981.
21	IS 5193 : 1998 Rubber sealing rings for domestic fruit and vegetable preserving jars specification		
22	IS 5598 : 1986 Code of practice for bale coating packing and marking of natural rubber		The Committee referred this standard for providing draft revision to the Panel created for the revision of IS 4588:1986.
23	IS 7654: 1987 Specification for rubber hose for chemicals		The Committee DECIDED to revise the standard by updating the cross referred standards. Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide

			Circulation for a period of two-month time. The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.
24	IS 13101 : 1991 Natural rubber latex creamed ammonia preserved - Specification		The Committee referred this standard for providing draft revision to the Panel created for the revision of IS 11001:1981.
25	IS 4588: 1986 Specification for rubber raw natural	Created a Panel on 19/05/2022 for providing draft revision. Please see Annex II for details.	The Committee NOTED that the 1st meeting of the Panel held on 15/11/2022. Further, the Committee requested the Panel to complete the work on priority basis.
26	IS 11001 : 1984 Specification for double centrifuged natural rubber latex	Created a Panel on 19/05/2022 for providing draft revision. Please see Annex II for details.	The Committee requested the Panel to complete the work on priority basis.
27	IS 8979 : 1997 Tetramethyl thiuram disulphide - Specification	Allotted to Dr R K Matthan for providing draft revision. **Status:** Draft revision awaited.	The Committee requested Dr. R K Matthan to provide draft revision within one-month time.
28	IS 10357 : 1990 General purpose furnace gpf N - 660 carbon black – Specification	Created a Panel on 19/05/2022 for review. Please see Annex II for details.	The Committee requested the Panel to complete the work on priority basis.
29	IS 10358 : 1991 Carbon black super abrasion furnace saf N - 110 – Specification		
30	IS 10387: 1990 Semi - Reinforcing furnace srf - Lm - Ns N - 762 And srf - Hm - Ns N - 774 carbon black – Specification		

31	IS 8134 : 1996 Intermediate super abrasion furnace Isaf carbon black - Specification		
32	IS 8135 : 1996 Fast extrusion furnace Fef carbon black - Specification		
33	IS 7497 : 1985 Specification for high abrasion furnace Haf carbon black		
34	IS 917 : 1976 Specification for activated calcium carbonate for rubber industry		The Committee requested AIRIA to provide contact details of the manufacturers for seeking inputs. The Committee also requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
35	IS 1683 : 1994 Barytes for rubber industry specification		-do-
36	IS 1684 : 1994 Red oxide of iron for rubber industry - Specification		-do-
37	IS 1685 : 1975 Specification for whiting for rubber industry		-do-
38	IS 3692 : 1975 Specification for rubber closures pharmaceutical	Contact details received from AIRIA. Email to be sent for seeking inputs.	The Committee also requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
39	IS 3867 : 1966 Specification for rubber ice bags	Contact details received from AIRIA. Email to be sent for seeking inputs.	-do-
40	IS 5192 (Part 1) : 1994 Natural rubber compounds specification Part 1 for moulded products		The Committee requested AIRIA to provide contact details of the manufacturers for seeking inputs. The Committee also requested BIS Sectt. to prepare draft revision by updating cross-referred

			standard and forward it to the stakeholders for one month-time.
41	IS 5192 (Part 2) : 1994 Natural rubber compounds specification Part 2 for extruded products		-do-
42	IS 5270 : 1969 Specification for rubber grommets for general purposes		-do-
43	IS 6450 : 1971 Specification for rubbers for the dairy industry	Contact details received from AIRIA. Email sent on 01/11/2022 for seeking inputs. **Status:** Inputs awaited.	The Committee also requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
44	IS 6693: 1972 Specification for ebonite	Contact details received from AIRIA. Mail to be sent for seeking inputs.	-do-
45	IS 7351: 1985 Specification for styrenated phenol	During the meeting, the Committee informed that M/s NOCIL, BASF may be contacted for inputs for the revision of the Indian Standard. **Status:** To be contacted for seeking inputs.	The Committee requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time. In case of no comments, the draft revision will be issued into Wide Circulation for a period of 02 month-time.
46	IS 8483: 1989 Specification for dibenzothiazyl disulphide	Shri Jayamani informed the Committee that he will provide contact details M/s NOCIL, Lanxess and Finorchem, Vadodara **Status:** Inputs awaited	The Committee requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
47	IS 8851 : 1994 Sulphur for rubber industry – Specification		The Committee requested AIRIA to provide contact details of the manufacturers for seeking inputs. The Committee also requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
48	IS 8862 : 1978 Specification for		-do-

	titanium dioxide Anatase Type for rubber industry		
49	IS 9407: 1980 Specification for light magnesium oxide for rubber industry	Members requested BIS Sectt. to contact M/s Rahul Magnisia Pvt. Ltd., Ahmedabad and Shri Piyush Raythatha, 20 Microns Limited (7574008711, Shri Soumitra Chatterjee technical@20nano.com) for seeking inputs for the revision of the standard. **Status:** To be contacted for seeking inputs.	The Committee requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
50	IS 10130 : 1992 Vulcanized vegetable oils Factice for rubber industry – Specification		The Committee requested AIRIA to provide contact details of the manufacturers for seeking inputs. The Committee also requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
51	IS 10660 : 1983 Specification for rubber hydraulic hose with textile reinforcement		The Committee DECIDED to revise the standard by updating the cross referred standards. Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.
52	IS 13978 : 1994 Zinc diethyl dithio carbamate Zdec – Specification		The Committee requested AIRIA to provide contact details of the manufacturers for seeking inputs. The Committee also requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the

			stakeholders for one month-time.
53	IS 13981 : 1994 Benzothiazyl - N - Morpholinyl sulphenamide Mbs - Specification		-do-
54	IS 14128 : 1994 N- 1 3-Dimethylbutyl -N - Phenyl paraphenylenediamine 6 PPD	Allotted to NOCIL for providing draft revision. **Status:** To be contacted for seeking inputs.	The Committee requested BIS Sectt. to prepare draft revision by updating cross-referred standard and forward it to the stakeholders for one month-time.
55	IS 14597 : 1998 Synthetic tarpaulins Heavy Duty Protective Covers made from coated nylon or polyester fabrics specification	Please see Item 3.4.1.	The Committee NOTED that the standard is being transferred to TXD.
56	IS 1001 : 1991 Synthetic rubber proofed coated fuel pump diaphragm fabric specification	Please see Item 3.4.1.	-do-
57	IS 2037 : 1986 Specification for tracing cloth	Please see Item 3.4.1.	-do-
58	IS 2089 : 1977 Specification for common proofed canvas duck and paulins Tarpaulins	Please see Item 3.4.1.	-do-
59	IS 2244 : 1972 Glossary of terms relating to treated fabrics	Please see Item 3.4.1.	-do-
60	IS 2789 : 1972 Specification for special proofed paulins Tarpaulins	Please see Item 3.4.1.	-do-
61	IS 3768 : 1996 Ventilation ducting - Vinyl coated flexible and semi - Rigid - Specification	Please see Item 3.4.1.	-do-
62	IS 4501 : 1981 Specification for aprons rubberized acid and alkali resistant	Please see Item 3.4.1.	-do-

63	IS 4810 : 1968 Specification for fumigation sheets and covers rubberized	Please see Item 3.4.1.	-do-
64	IS 5915 : 1970 Specification for single texture rubberized waterproof fabrics	Please see Item 3.4.1.	-do-
65	IS 6110 : 1983 Specification for double - Texture rubberised waterproof fabrics	Please see Item 3.4.1.	-do-
66	IS 8699 : 1977 Specification for PVC coated fabrics for footwear industry	Please see Item 3.4.1.	-do-
67	IS 9481 : 1980 Specification for pillows air	Please see Item 3.4.1.	-do-
68	IS 9491 : 1980 Specification for mattress air	Please see Item 3.4.1.	-do-
69	IS 11884 : 1986 Specification for fire - Resistant brattice sheeting made from unsupported plastics	Please see Item 3.4.1.	-do-
70	IS 12649 : 1989 Treated coated fabrics for various applications - Guide for selection	Please see Item 3.4.1.	-do-

5.2.1 Revision of IS 5821: 1986 Specification for Hot Water Hose of Rubber

The Committee CONSIDERED Item 5.2.1 of the Agenda. After detailed deliberations on the comments received from Shri P. K. Bala, Dy. Director/Metallurgical & Chemical Directorate, RDSO, Lucknow decided as follows:

Sl No.	Clause	Justification and Proposed change	Decision of the Committee
1	3.1.2.2	The braided textile reinforcement shall consist of yarn, natural (Poly isoprene) or synthetic (EPDM, Silicone, Nitrile, Fluoro etc.) or combination thereof with braided or spiral type construction. Since all of the above mentioned rubber are resistant to hot water as well	The Committee NOTED that this comments are on the textile Reinforcement and not on the lining and cover of the hoses. After deliberations, the Committee NOT AGREED to change.

		chemical resistant.	
2	Please add new clause 3.4.8, Oil Immersion Test	Since water Hose Rubber is frequently exposed to oils particularly Diesel and Petrol, hence test requirement of oil immersion is needed. **Test:** The volume increase of the tube and cover shall not be more than 140% when oil used for 70 hours at 212°F in ASTM #3 Oil or any reference fuel. **"Swelling Test"** Attempts to simulate service conditions through controlled accelerated testing, but may not give any direct correlation with actual part performance, since service conditions vary too widely. It yields comparative data on which to base judgment as to expected service quality. The choice of the immersion period will depend upon the nature of vulcanizate (Synthetic, Natural or combination of both) & woven fabric, therefore test temperature and the liquid to be used, shall be mutually agreed between the supplier and purchaser and shall be well defined in composition clause 3.1.2.1 of IS 5821. Accordingly, test duration and test temperature and oil category Oil No. 1 (IRM 901), oil No. 2 (IRM 902) and oil No. 3 (IRM 903) will be decided.	The Committee AGREED to incorporate the following test: '**Swelling Test** The lining and cover of the hose after immersion in the test liquid oil no. 1 (IRM 901), oil no. 2, (IRM 902), oil no. 3 (IRM 903) or any other reference liquid [see Annex A of IS 3400 (Part 6)], shall not change in volume more than + 140 percent when immersed for a period of 72+0 -2 h at 100 ±1 °C and tested according to the method prescribed in IS 3400 (Part 6). **Note** - Where the use of a glove box is necessary, the tolerance is relaxed to ±2 °C.' Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide Circulation for a period of two-month time, with the above AGREED changes and by updating cross referred standards. The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.

5.3 Action Research Project (ARP) by BIS Officers

5.3.1 IS 1867: 1975 Specification for Rubber Hot Water Bottles

The Committee considered the APR and DECIDED to issue draft revision into Wide Circulation for a period of two-month time, as received from Shri Virendra Singh, attached as **Annex I**.

The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.

5.3.2 IS 635: 1982 Specification for oil and solvent resistant hose of rubber (*third revision*)

The Committee considered the APR and DECIDED to revise the standard by updating the cross referred standards. Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide Circulation for a period of two-month time.

The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.

5.3.3 IS 638:1979 Specification for sheet rubber jointing and rubber insertion jointing

The Committee NOTED the information as given in the Agenda and DECIDED to revise the standard by updating the cross referred standards. Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide Circulation for a period of two-month time.

The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.

5.3.4 IS 9406:1980 Specification for calcium silicate for rubber industry

The Committee NOTED the information as given in the Agenda and DECIDED to revise the standard by updating the cross referred standards. Further, the Committee requested BIS Sectt. to prepare and issue draft revision into Wide Circulation for a period of two-month time.

The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.

ITEM 6 DRAFT STANDARDS/AMENDMENTS FOR FINALIZATION

5.1 Doc. No.: PCD 13 (19895) IS 2396: 2017/ ISO 5772: 1998 Rubber hoses and hose assemblies for measured fuel dispensing - Specification (Fifth Revision)

The Committee considered Item 5.1 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.2 Doc. No.: PCD 13 (19808) IS 3322 (Part 1) : 1987 Specification for water - Resistant clothing: Part 1 PVC - Coated fabrics (Second Revision)

The Committee considered Item 5.2 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.3 Doc. No.: PCD 13 (19893) IS 3549: 2017 Rubber hoses and hose assemblies for water suction and discharge - Specification (Third Revision)

The Committee considered Item 5.3 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.4 Doc. No.: PCD 13 (19884) IS 8189: 1996 Rubber hose for on - Shore oil suction and discharge services - Specification (Second Revision)

The Committee considered Item 5.4 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.5 Doc. No.: PCD 13 (19809) IS 11659: 1986 Specification for rubber hose for transferring anhydrous ammonia (First Revision)

The Committee considered Item 5.5 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.6 Doc. No.: PCD 13 (19802) Indian Standard on Rubber, raw natural and raw synthetic — General guidance on storage [*New Standard*].

The Committee considered Item 5.6 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.7 Doc. No.: PCD 13 (19896) IS 16204: 2014 Rubber and Plastics Hoses and Hose Assemblies – Vocabulary

The Committee considered Item 5.7 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.8 Doc. No.: PCD 13 (19882) IS 12492:1988 Specification for Thermoplastics Hoses (Textile Reinforced) for Compressed Air

The Committee considered Item 5.8 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.9 Doc. No.: PCD 13 (19872) IS 12585:1988 Specification for Thermoplastic Hoses (Textile Reinforced) for Water — General Purpose

The Committee considered Item 5.9 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.10 Doc. No.: PCD 13 (19819) Adoption of ISO 18752:2022 Rubber hoses and hose assemblies — Wire- or textile-reinforced single-pressure types for hydraulic applications — Specification

The Committee considered Item 5.10 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.11 Doc. No.: PCD 13 (21062) IS 10908:1991 Flexible rubber tubing for liquefied petroleum gas — Specification

The Committee considered Item 5.11 of the Agenda and DECIDED that the document shall be sent for printing, if no comments received within the Wide Circulation period.

5.12 Doc. No.: PCD 13 (19803) IS 7466:1994 Rubber Gasket for Pressure Cooker

The Committee considered Item 5.12 of the Agenda and after detailed deliberations on the received comments, DECIDED as follows:

5.12.1 Name of The Commentator/Organization: M/s TTK Prestige Limited

Sl No.	Clause	Proposed change	Decision of the Committee
1	**5.2.2**	**5.2.2** Each gasket shall be marked with the following: a) Name of the material;(Optional on the gasket and mandatory on the packaging) b) Capacity of the cooker to which the gasket will fit (or Part no/ SKU number/ Spare code along with manufacturer identification) c) Month and year of the manufacture. NOTE — Printing inks, if used, shall conform to IS 15495	**Marking Clause 5.2.2:** **a)** Delete **c)** Delete
2	Table 1, Sl No. xv), Overall migration	Vide email dated 08/12/2022, Shri Rajasekaran.S, TTK Prestige informed the Committee that they have sent the samples of the nitrile and silicone gaskets to M/s IRMRA. Both the materials are passing all the requirements except the overall migration requirements. The committee may note that the test requirements are referred from IS 9845 'Determination of overall migration of constituents of plastics materials and articles intended to come in contact with foodstuffs - method of	Shri Viswanath Shenoy informed the Committee that as per IS 9845, the testing condition given as 121°C for 2h, whereas in EU, testing to be done at 100°C for 4h. He further informed that when our sample tested at 100°C for 4h, we got result always less than 10 mg/dm^2. However, when we go for 121°C for 2h, the result is always more than 10

		analysis'. He further informed that we do not have any tests for the Migration/ Extraction of substances in existing IS 7466 and it is very good in the interest of the Consumer to have such a requirement. But to start with, the committee may recommend to proceed with Extractables requirement which is actually derived from US FDA and in the long run, after detailed study, a decision may be taken on the test requirements for determining Overall migration of Rubber products coming in contact with Food (Current draft refers to the test requirements of plastics as per IS 9845).	mg/dm^2. He suggested that either we have to modify requirements as 20 mg/dm^2 or test condition as 100°C for 4h. After detailed deliberations, the Committee DECIDED as follows: **i)** Decided to delete requirements of 'Overall Migration'. **ii)** Requested TTK Prestige to provide more data at 100°C for 4h for both varieties. **iii)** Based on the data, the requirements of 'Overall Migration' may be included through amendment.

5.12.2 Name of The Commentator/Organization: Rajiv Agarwal, Autopress (India) Pvt. Ltd.

Sl. No.	Clause/Subclause/ para/table/fig. No. commented	Proposed change	Decision of the Committee
1	Clause 4.4; Table 1 Requirements of Rubber Used for Gaskets i) Hardness, IRHD/ Shore A **Requirement Type 2** Column (4) 7_0_± 5_ _	**Requirement Type 2** (4) 55 to 70	Shri Viswanath Shenoy informed the Committee that sleeping of gasket is not safe as it will tend to leakage. Hence, low hardness is not suggested. Dr. Siby also informed that wide range of the hardness will compromise the safety parameters. After detailed deliberations, the Committee Not Agreed for the wide range of hardness for silicone rubber.
2	Annex 3.1	After each 4 hour of testing, water and pressure cooker either be changed or cooled down to the normal	Agreed to include the following note below E.3.1: '**Note:** After each 4 hour of testing, water and pressure

		ambient temp then start testing for the next 4 hours and so on until full 120 hours of testing will be completed.	cooker either be changed or cooled down to the normal ambient temp then start testing for the next 4 hours and so on until full 120 hours of testing.'

Further, the Committee requested BIS Sectt. to send the documents for printing with the Agreed changes.

5.13 Doc. No.: PCD 13 (20136) IS 11356 (Part 1) :2020 Styrene-Butadiene Rubber Latex (Part 1) Non- Carboxylated [revision of IS 11356]

The Committee considered Item 5.13 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.14 Doc. No.: PCD 13 (20137) IS 11356 (Part 2) :2020 Styrene-Butadiene Rubber Latex (Part 2) Carboxylated [revision of IS 11356]

The Committee considered Item 5.14 of the Agenda. During the meeting, Member Secretary informed the Committee that the comments as received from M/s Jubilant Agri & Consumer Product Ltd. and BASF were discussed in the Panel meeting held on 06/12/2022. The recommendations of the Panel are as given below:

Name of The Commentator/Organization: M/s Jubilant Agri & Consumer Product Ltd.

Sl No	Clause/Sub-clause/ para/table/fig. No. commented	Justification	Proposed change	Recommendations of the Panel
01	Table 1 Requirements for Carboxylated Styrene-Butadiene Rubber Latex Residual styrene content, *Clause* 3.1	Process followed by Manufacturers	Specification to set 0.3% Max. against 0.1% in line with Non carboxylated SB latex	Not Agreed to change.

Name of The Commentator/Organization: BASF India Limited

Sl No	Clause	Justification	Proposed change	Recommendations of the Panel
1	Forwar d	Second paragraph of the forward mentions Styrene butadiene SBR latex CAS No 9003-55-8. As this standard is about Styrene Butadiene SBR Carboxylated	CAS No to be removed as Carboxylation may involve different carboxylic acids like Acrylic acid, Methacrylic Acid etc and hence one CAS number is not appropriate.	Agreed to delete.

		mentioned CAS No is not the correct one.		
2	Table 1 (Clause 3.1) Sl. No I Column requirements	Total Solids percent current proposed range of 35 – 55% might not cover some of the lower and higher solid products of our SBR range	Hence, we propose 30 – 60% to include the lower and higher solids SBR	Agreed for 30 to 65 percent to cover all the ranges used in the different sectors.
3	Table 1 (Clause 3.1) Sl. No I Column 5	Method IS 9316 (Part 4) covers solid testing conditions as 70^0C for 16 hours or 105^0C for 2 hours using oven and 125^0C for 45 – 60 min using vacuum oven.	Industry prefers faster testing method for productivity we recommend incorporate 140^0C for 30 min using forced air circulated oven. ISO 3251:2019 method can be adopted.	Panel recommends that ISO 124 is suitable for testing and requested BASF to provide their comments on ISO 124 for its revision by ISO.
4	Table 1 (Clause 3.1) Sl. No ii , Column requirements	pH at 25°C Current proposed range of 6.5 – 10 is not covering few of our SBR emulsions.	We propose pH range of 5.5 – 10 cover our SBR emulsions.	Agreed for 4 to 10 to cover all the ranges used in the different sectors.
5	Table 1 (clause 3.1) Sl. No iii	Surface tension Dyns / cm at 25^0C Not relevant to paper applications making this mandatory will create increase workload to testing lab without any value addition to customer	This parameter to be removed from the specification.	Not Agreed to delete.
6	Table 1 (clause 3.1) Sl. No iv	Specific Gravity. This parameter is not required for the customer. Since product contains micro foam which will not give correct value of specific gravity.	This parameter to be removed from the specification.	Not Agreed to delete.
7	Table 1	Brookfield viscosity	Viscosity range to be 20 –	BASF requested to

	(clause 3.1) Sl. No vi Column requirements	range to be increase as few of our current products viscosity range start at 20 mPas	1000 mPas instead of 500 – 1000 mPas	widen the range from 20 to 2500. However, the Panel agreed for 20 to 1000 to cover all the ranges used in the different sectors. Further, the Panel requested BASF to provide supporting data for wider range for its consideration.
8	Table 1 (clause 3.1) Sl. No vi Column 2 characteristics	Brookfield viscosity spindle 1, 12 rpm at 25^0C. Fixing of spindle and rpm 2 is not advisable as selection of spindle and rpm depends to product viscosity and torque generated.	We propose to selection of spindle and rpm to be decided by manufacturer depending of the product viscosity and torque.	Not Agreed.
9	Table 1 (clause 3.1) Sl. No vi Column 5	Test method IS 9316 (Part 2) is generic method using rotational viscometer Prepared in 1987 and last reaffirmed in 2019. Current Brookfield viscosity method used by industries is not matching that due to advancement of technologies. Instrument models mentioned in the method are outdated and correction factors are not in use.	Test Method IS 9316 (Part 2) to be updated to match currently used method in the industries. DIN ISO 2555:2018 Method can be adopted.	Panel recommends that ISO 1652 is suitable for testing and requested BASF to provide their comments on ISO 1652 for its revision by ISO.
10	Table 1 (clause 3.1) Sl. No viii Column requirements	Coagulum content percent by mass. Unwanted component or impurity is specified by max limit not by the range as specified in the standard 0.1 – 0.3%	Only Max limit can be specified 0.3 %	Agreed

11	Table 1 Sl No v column 5	Residual Styrene content percentage by mass method IS 4511 (part 3) It is titration method for estimation using unsaturated bond estimation. Advance method using GC is preferred.	GC using internal standard method is useful for estimation of residual monomers and VOC. ISO 13741 Part-1 may be adopted.	Agreed to include ISO 13741-1:1998 as alternate method.
12	Table 1 Sl. No vii	Average particle size nm. Average particle size requirement varies depending on type of application once product selection is made; customer may not need particle size data for day-to-day operations.	This parameter to be removed from the specification.	Not Agreed to delete. During the meeting BASF suggested to lower the limit of particle size. The Panel requested BASF to provide supporting data for lowering the range for its consideration.
13	Table 1 Sl. No vii Colum n 5	Test method IS 101 (Part 10/Sec 1) is using technique laser diffraction. Dynamic light scattering technique which gives intensity-based data and more suitable for nano particle size analysis. Laser diffraction with back scattering principle is more suitable for micron range particles only and having poor resolution in nano range.	We propose Dynamic light scattering technique method. DIN ISO 22412:2018-09 method can be adopted.	Agreed to include ISO 22412:2018 as alternate method.

The Committee endorsed the recommendations of the Panel and requested BIS Sectt. to send the document for printing with the Agreed changes.

5.15 Doc. No.: PCD 13 (19224) Reclaimed Rubber — Specification (second revision of IS 7490)

The Committee CONSIDERED Item 5.15 of the Agenda and inputs of Shri Jayamani and Shri Chinmoy. The Committee also considered the recommendations of GRP Limited based on the review of the inputs/ comments of Shri Jayamani and Shri Chinmoy, which is attached as **Annex II**.

After detailed deliberations, the Committee requested BIS Sectt. to issue the draft as attached as Annex II into Wide Circulation for a period of one-month. The Committee also DECIDED that the

documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.

5.16 Doc. No.: PCD 13 (20188) Indian Standard on Butadiene Rubber [*New Standard*]

The Committee considered Item 5.16 of the Agenda and NOTED that there are no comments on the Wide Circulation draft. After deliberations, the Committee DECIDED to finalize the document for printing.

5.17 Doc. No.: PCD 13 (18979) Ammonia Preserved Nitrosamine Free Natural Rubber Latex Concentrate — Specification [*New Standard*]

The Committee considered Item 5.17 of the Agenda. During the meeting, Dr Siby Varghese, Rubber Board informed the Committee that he will provide his inputs within one-month time.

ITEM 6 ISSUES ARISING OUT OF PREVIOUS MEETINGS

6.1 Formulation of Indian Standards on 'Soothers and pacifiers for babies and young children'

The Committee considered Item 6.1 of the Agenda and requested the Panel to complete the work on priority basis.

6.2 Formulation of Indian Standards on (i) 'Effect on Water Quality' and (ii) 'Microbiological Deterioration'

The Committee considered Item 6.2 of the Agenda and requested the Panel to complete the work on priority basis.

6.3 Formulation of Indian Standards on 'GRAS (Generally Recognized as Safe)/GNRAS (Generally Not Recognized as Safe) of Rubber compounding additives and chemicals'

The Committee considered Item 6.3 of the Agenda and requested the Working Group to complete the work on priority basis.

6.4 Formulation of Indian Standards on 'Silicon gadgets for kitchen'

The Committee considered Item 6.4 of the Agenda and requested the Panel to complete the work on priority basis.

6.5 Formulation of Indian Standards on 'Cup-Lump' [*PMO proposal*]

The Committee considered Item 6.5 of the Agenda and NOTED that the final study report on 'The Effect of Storage of Cup Lumps on Raw Rubber Properties and Microbial Population' has been submitted to BIS Sectt. Further, BIS Sectt. circulated this report to the Committee members on 07/12/2022.

During the meeting, Dr. Siby Varghese, Chairman informed the Committee that due to the variability and heterogeneity associated with production, collection, transport and storage of cup lumps and subsequent reduction in properties due to microbial action, it is not feasible to formulate

product standard for cup lump. He further informed that storage guidelines for cup lump are already available with Rubber Board and manufacturers are following the same.

IBRA informed the Committee that the proposal for the formulation of Indian Standard was received from PMO that was discussed by this Committee. Further, in the past meetings, the Committee decided that product standard on Cup Lump cannot be formulated but guidelines protocol and good practices to be followed for improving the quality of the cup lump may be prepared, based on the study report of the Rubber Board.

Shri Santosh informed the Committee that they are producing ISNR5 from Cup Lumps and also following guidelines given by Rubber Board. As guidelines are already existing in the country regarding collection and preservation, there is no need to again issue such guidelines. He further informed that if members want, Rubber Board may circulate these existing guidelines.

Dr. Siby informed the Committee that the final study report itself have all information regarding the storage of cup lumps, maximum time which can be stored without property deuteration etc. Based on this study report, Rubber Board may also issue the good practices and collection guidelines within a limited time frame and that may also be circulated to the members. He further informed that as the subject matter is subjudice before Hon'ble High Court of Kerala, the Committee may wait till receiving of the final verdict of the Hon'ble High Court.

After detailed deliberations, the Committee requested Rubber Board to prepare guidelines based on the study report and to circulate the same to the members.

6.6 Formulation of Indian Standards on 'Silicon Rubber' [*Proposed by DCPC***]**

The Committee considered Item 6.6 of the Agenda and requested the Panel to complete the work on priority basis.

6.7 Revision of IS 15361 : 2003 Raw Natural Rubber - Ribbed Smoked Sheets (RSS) – Guidelines

The Committee considered Item 6.7 of the Agenda and requested Dr Siby Varghese, Rubber Board to provide draft revision.

6.8 Revision of IS 15430: 2003 Rubber Seals - Joint Rings Used for Gas Supply Pipes and Fittings – Material

The Committee CONSIDERED Item 6.8 of the Agenda. After detailed deliberations, the Committee decided to align IS 15430:2003 with ISO 16010:2019 under dual numbering system.

The Committee also requested BIS Sectt. to issue the draft into Wide Circulation for two-month time. The Committee also DECIDED that the documents shall be finalized for the printing, if no comments received within the wide circulation period. The documents shall be sent for printing after approval of the Chairman.

6.9 Revision of IS 7069: 2001 Benzothiazyl - 2 - Cyclohexyl sulphenamide (Cbs) - Specification (Second Revision)

The Committee CONSIDERED Item 6.9 of the Agenda and requested BIS Sectt. to contact M/s NOCIL, Lanxess and Finorchem, Vadodara for their inputs for the revision of the Indian Standard.

6.10 IS 14923 : 2001 Polymerized 1,2, dihydro 2,2,4 - Trimethyl quinoline (TMQ) – Specification

The Committee CONSIDERED Item 6.10 of the Agenda and requested BIS Sectt. to contact M/s NOCIL, Lanxess and Finorchem, Vadodara for their inputs for the revision of the Indian Standard.

6.11 Revision of IS 15078: 2001 Petroleum based process oils for rubber industry – Specification

The Committee CONSIDERED Item 6.11 of the Agenda and requested BIS Sectt. to contact Dr Bharat Sharma, Tchnowax, IOCL, HPCL, BPCL, MRF and ATMA for their inputs for the revision of the Indian Standard. Dr Arup also requested BIS Sectt. to send soft copy of the standards for providing his inputs.

Item 7 NEW WORK ITEM PROPOSAL

7.1 Adoption of ISO 2027:1990 Natural rubber latex concentrate, evaporated, preserved — Specification [*Proposal of BIS Sectt.*]

The Committee CONSIDERED Item 7.1 of the Agenda. During the meeting, Shri Santosh informed the Committee that Natural rubber latex concentrate, concentrated by evaporation process is not being manufactured in India. However, the Committee felt that an Indian Standard should be formulated on the above subject. Dr. Matthan informed the Committee that he may provide relevant documents on the subject. After detailed deliberations, the Committee decided to create a Panel, detailed as given below:

Scope: To provide draft on 'Natural rubber latex concentrate, evaporated, preserved'.

Timeline: 06 months

Composition:

i) Dr. R. K. Matthan (*Convener*)
ii) Dr. Siby Varghese, Rubber Board
iii) Shri Satish Babu, Rubber Board
iv) Shri Santosh Kumar, Association of Planters of Kerala
v) Shri Praveen Mathew, KA Prevulacanized
vi) Shri Satish Abraham, Association of Latex Producers of India
vii) Shri Philip C Jacob, Association of Planters of Kerala

7.2 Adoption of ISO 24376:2022 Rubber, raw natural — Guidelines and requirements for technically specified low-protein natural rubber [*Proposal of BIS Sectt.*]

The Committee CONSIDERED Item 7.2 of the Agenda and requested BIS Sectt. to circulate the ISO Standard to the Committee members for their inputs. The decision on the formulation of Indian Standard will be taken in the next meeting.

7.3 New Work Item Proposal proposed by APCOTEX:

7.3.1 During the meeting, Dr. S. V. Govindraju proposed the following new work item for the formulation of Indian Standards. He also informed that he will provide working draft to BIS Sectt. within two month-time.

i) Nitrile Butadiene Rubber (NBR)
ii) Hydrogenated Nitrile Butadiene Rubber (XNBR) latex
iii) High Styrene Rubber (HSR)
iv) Carboxylated styrene acrylic latex

The Committee requested Dr. S. V. Govindraju to provide working draft on the above subjects for discussion in the next meeting.

Item 8 INTERNATIONAL ACTIVITIES

8.1 Meeting of ISO/TC 45 scheduled form 27 October 2022 to 10 November 2022 (*Virtual*).

8.1.1 The Committee NOTED the information as given in Item 8.1.1 of the Agenda.

8.1.2 Details of balloting done (till November 2022)

The Committee NOTED the information as given in Item 8.1.2 of the Agenda.

ITEM 9 DATE AND PLACE FOR THE NEXT MEETING

The Committee DECIDED to hold quarterly meetings of the Committee in the month of June, September, December and March of each year. The exact date and venue will be informed in consultation with the Chairman.

ITEM 10 ANY OTHER BUSINESS

10.1 During the meeting, Member Secretary requested the Committee to link all the Indian Standards published by this Committee with Sustainable Development Goals (SDGs). The Committee requested BIS Sectt. to link all the standards with SDGs and circulate the same to the Committee members for their inputs.

ATTENDANCE

Sl No.	Organization	Name	Email
1.	Rubber Research Institute of India, Rubber Board, Kottayam	Dr. Siby Varghese (*Chairman*)	siby@rubberboard.org.in
2.	Association of Planters of Kerala, Thiruvananthapuram	Shri Philip C Jacob	Pcjacob@gmail.com
3.	Association of Planters of Kerala, Thiruvananthapuram	Shri Santosh Kumar	santoshkumar@harrisonsmalayalam.com
4.	GRP Limited, Mumbai	Shri Kalyan Das	kalyan.das@grpweb.com
5.	GRP Limited, Mumbai	Shri K M Ravi	km.ravi@grpweb.com
6.	Voluntary Organisation in Interest of Consumer Education (VOICE), New Delhi	Shri M A U Khan	mauk010144@gmail.com
7.	IRMRA	Dr. Bharat	irmra.corporate@gmail.com
8.	Apollo Tyres Limited, Kerala	Shri Arup Chandra	ag.chandra@yahoo.com
9.	RDSO LKO	Shri P.K. Bala	pkbala66@gmail.com
10.	Flame Retardants Association of India, Gurugram	Shri P V Murali Mohan	muralimohandel@gmail.com
11.	KA Prevulacanized	Shri Praveen Mathew	praveen_mathew@hotmail.com
12.	Apcotex	Dr. SV Govindaraju	svgovindaraju@apcotex.com
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15.	In Personal Capacity	Shri Sunny Sebastian	drsunnysebastian@gmail.com
16.	Automotive Tyres Manufacturers Association, New Delhi	Shri niteesh1978	niteesh1978@gmail.com
17.	Block Rubber Processors Association of India, Mumbai	Shri Rajiv Joseph Tharian	rajiv@alphacmd.in
18.	Indian Synthetic Rubber Private Limited, Noida	Shri Tuhin Kanti Das	tuhinkanti.das@isrpl.co.in

19.	Indian Synthetic Rubber Private Limited, Noida	Shri Bhanu Pratap Singh	bhanupratap.singh@isrpl.co.in
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27.	BIS, PCD	Shri Vijay Kumar Gupta (*Member Secretary*)	Pcd13@bis.org.in