	भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS
	(PETROLEUM, COAL & RELATED PRODUCTS DEPTT.)
MINUTES	
Rubber and Rubber Products Sectional Committee, PCD 13	**34th Meeting**
DATE & TIME	**Friday, 1000 h, 14 July 2023**
VENUE	**Indian Rubber Manufacturers Research Association (IRMRA)** 254/1 B, Rd Number 16U, Wagle Industrial Estate, Thane West, Maharashtra 400604
CHAIRMAN	**Dr. Siby Varghese**, Rubber Research Institute of India, Rubber Board
MEMBER SECRETARY	Shri Rajat Gupta, Scientist 'B'/ Assistant Director (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 Rajat Gupta, Sc-B (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 Dr. Sawar Dhanania, Chairman, Rubber Board

Dr. Sawar Dhanania, Chairman, Rubber Board welcomed all the members and expressed his heartfelt gratitude to be a part of 34th meeting of PCD 13. He also informed the members that Rubber is the future in terms of technological advancements and requested members to be actively involved in standards formulation activity for Rubber.

1.3 Opening Remarks by the Chairman, PCD 13

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 33rd MEETING

2.1 The Committee CONSIDERED Item 2.1 of the Agenda that no comments have been received on the Minutes of the 33rd meeting of PCD 13 and CONFIRMED the Minutes as circulated.

ITEM 3 THE PRESENT TITLE, SCOPE AND COMPOSITION OF PCD 13.

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

3.2 The Committee CONSIDERED Item 3.2 of the Agenda. While reviewing the composition and attendance of the PCD 13 Sectional Committee, the following decisions were taken by the Committee:

- **a)** Withdraw nominations of Rado Industries ltd., Faridabad as it was dealing with the coated fabrics which has now been transferred to TXD.
- **b)** Withdraw nominations of New Age Fire Protection Industries Private Limited, Chinchawali Gohe as they haven't attended the last 4 meetings of PCD 13.
- **c)** Withdraw nominations of Dow Corning as their nominations are still awaited.
- **d)** Withdraw nominations of Paragon Industries Limited, New Delhi as their nominations are still awaited.

During the meeting, Shri Niteesh Shukla, ATMA informed the committee that he will provide the contact details of Defence Research and Development Organization, Research Centre Imarat, Hyderabad.
The Committee noted the change in nomination from RIL, Vadodara and agreed to the inclusion of Shri RC Ghosh and Shri Gajendra Inani from RIL, Vadodara.

As apprised by the Chairman, the Committee decided to Co-opt the following in the PCD 13 Sectional Committee:

a) Elkem (Since it is dealing with the Silicon Rubber and Dow Corning was being withdrawn.)
b) Dr Shailendra Solanky, Imperial Auto Industries Ltd., Faridabad (As an expert from Hose industries in PCD 13 Sectional Committee and further, he is a member in Hoses Subcommittee, PCD 13:3.)
c) Dr N D Gangal, NOCIL as a raw material expert and he is already a member of PCD 29 Sectional Committee.

3.3 Requests for Co-option

The Committee CONSIDERED Item 3.3 of the Agenda and the Co-option requests received on the BIS Portal and through mail. After detailed deliberations, the Committee DECIDED as follows:

- **a)** Co-opt Shri Jimit Shah, NewAge Fire Fighting Co. Ltd., Surendranagar, Gujarat in the PCD 13 sectional committee (Since New Age Fire Protection Industries Private Limited, Chinchawali Gohe was being withdrawn.)

b) Co-opt Shiva Texyarn Limited in Panel 13 for revision of IS 4135:1974 "Specification for hospital rubber sheetings (First Revision)".

c) Did not accept the Co-option requests received from BASF India Ltd. and Lubrizol in the PCD 13 sectional committee since the composition of PCD 13 sectional committee is presently balanced with all the stakeholders.

ITEM 4 ACTIVITIES OF RUBBER AND RUBBER PRODUCTS SECTIONAL COMMITTEE, PCD 13

4.1 The Committee NOTED the information as given in ITEM 4.1 of the Agenda.

ITEM 5 NEW PROCESS REFORMS IN STANDARDIZATION

During the meeting, the BIS Sectt delivered a presentation on process reforms in the standardization activities of the Bureau of Indian Standards (BIS). Member Secretary highlighted that by addressing these areas for improvement, BIS aims to strengthen its standardization activities and ensure that they align with the evolving needs of industries, stakeholders, and the international landscape.

The Committee members were provided with insights into the initiatives undertaken by BIS for the identification of new areas for standardization. They were informed that BIS has developed a Standard National Action Plan 2022-2027, which serves as a roadmap for identifying and prioritizing new areas for standardization. This plan outlines the strategic direction and focus areas based on the current and future needs of industries, consumers, and other stakeholders. He also informed that BIS has taken a proactive step to collaborate with central ministries, departments, and state governments to obtain inputs from their Annual Program of Standardization on potential areas that require standardization.

They were apprised that BIS has a vision of establishment of standardization cells, in industry associations to actively engage with industry representatives. These cells serve as platforms for industry associations to communicate their standardization requirements and suggest new areas that could benefit from the development of standards. In addition, BIS maintains close interaction with prominent faculty members from academia institutions to stay updated on the latest research, technological advancements, and emerging areas in water quality. BIS is in process to taking subscription to relevant journals and research papers to stay informed about the latest developments in various fields to access cutting-edge research and identification of potential areas for standardization based on the findings and recommendations presented in these publications.

5.1 The Committee CONSIDERED Item 5.1 of the Agenda and APPROVED the Rolling Annual Action Plan (AAP) for the year 2023-24.

5.2 The Committee NOTED the information as given in ITEM 5.2 of the Agenda.

5.3 The Committee NOTED the information as given in ITEM 5.3 of the Agenda.

5.4 The Committee NOTED the information as given in ITEM 5.4 of the Agenda.

5.5 The Committee NOTED the information as given in ITEM 5.5 of the Agenda.

5.6 The Committee NOTED the information as given in Item 5.6 of the Agenda.

5.7 The Committee NOTED the information as given in Item 5.7 of the Agenda. BIS Sectt. informed the Committee that BIS is in process to taking subscription of relevant journals and research papers to stay informed about the latest developments in various fields to access cutting-edge research and identification of potential areas for standardization based on the findings and recommendations presented in these publications.

5.8 The Committee NOTED the information as given in Item 5.8 of the Agenda. BIS Sectt informed the Committee that the BIS management keeping in view the fact that it is sometimes felt by the Committees that there is a lack of specific expertise for standards development, suggested creating a pool of experts that would facilitate the standardization work. Expertise of the experts may be taken up during the revision and formulation of standards.

ITEM 6 REVIEW OF INDIAN STANDARDS

6.1 Periodic Review of Indian Standards

The Committee CONSIDERED Item 6.1 of the Agenda. After detailed deliberations, the Committee DECIDED to reaffirm all the Indian Standards with a decision to revise the Indian Standards, wherever applicable. Status is given below:

Table 1 Indian Standards due for Periodic Review

S. No.	IS Number	IS Title	Due Date	Decision of the Committee in 34th meeting
1.	IS 10130 : 1992	Vulcanized vegetable oils (Factice) for rubber industry - Specification (First Revision)	April, 2023	During the meeting, Dr. Siby Varghese informed that he will provide his inputs on revision of this standard within 1 month.

2.	IS 10660 : 1983	Specification for rubber hydraulic hose with textile reinforcement	April, 2023	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (22204)** (*see* item 8.8)
3.	IS 11001 : 1984	Specification for double centrifuged natural rubber latex	January, 2024	During the meeting, Dr. Siby Varghese informed that Panel 08 will provide the draft revision within 3 months. Dr. Siby Varghese also informed that he will look into the possibility of any research needed in revision of this standard and if any research is needed then he will submit the scope of the research project, names of the probable institutions to take up the research and intended outcomes of the research to be taken up, to BIS Sectt. within 1 month. **Composition of Panel 08:** i) Dr Siby Varghese, Rubber Board **(Convener)** ii) Shri Praveen Mathew, KA Prevulacanized iii) Shri Satish Abraham, Association of Latex Producers of India, Kerala iv) Shri Santosh Kumar, UPASI v) Shri Philip Jacob, Association of Planters of Kerala vi) Dr R K Matthan vii) Member Secretary, BIS
4.	IS 12844 : 1989	Vinyl pyridine latex - Specification	January, 2024	The Committee CONSIDERED the comments received from APCOTEX on IS 12844 : 1989 and agreed to their comments. The Committee requested APCOTEX to prepare the draft revision of this standard by incorporating their comments and DECIDED to circulate the draft to the committee for 1 month for their review. In case of no comments received within 1 month, the committee DECIDED to issue the draft revision under wide circulation for 2 months. The Committee also DECIDED that the document 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.	IS 13101 : 1991	Natural rubber latex, creamed, ammonia preserved - Specification	April, 2023	During the meeting, Dr. Siby Varghese informed that Panel 08 will provide the draft revision within 3 months.
6.	IS 13978 : 1994	Zinc diethyl dithio carbamate (Zdec) - Specification	April, 2023	The Committee requested LANXESS, NOCIL and Dr. Arup Chandra to provide the draft revision of this standard within 2 months. The Committee further DECIDED to wide circulate the draft document received for 2 months after the approval of the Chairman.
7.	IS 13981 : 1994	Benzothiazyl - N - Morpholinyl sulphenamide (Mbs) - Specification	April, 2023	The Committee requested LANXESS, NOCIL and Dr. Arup Chandra to provide the draft revision of this standard within 2 months. The Committee further DECIDED to wide circulate the draft document received for 2 months after the approval of the Chairman.
8.	IS 14128 : 1994	N-(1,3-Dimethylbutyl)-N~-Phenyl paraphenylenediamine (6 PPD)	January, 2024	The Committee requested LANXESS, NOCIL and Dr. Arup Chandra to provide the draft revision of this standard within 2 months. The Committee further DECIDED to wide circulate the draft document received for 2 months after the approval of the Chairman.
9.	IS 14424 : 2018	Rubber threads - Specifications (First Revision)	September, 2023	During the meeting, Shri Praveen Mathew informed that he will give the contact details of the manufacturer for revision of this standard. The Committee also requested to share ISO 20058:2017 General purpose rubber thread — Specification to Shri Praveen Mathew, with a copy to Dr. Siby Varghese. The Committee further DECIDED that the action on the review of this standard will be taken up after getting inputs from the Shri Praveen Mathew and Dr. Siby Varghese.
10.	IS 15355 : 2018/ ISO 8789:2009	Rubber hoses and hose assemblies for liquefied petroleum gas (L.P.G) in motor vehicles - Specification (First Revision)	October, 2023	The Committee DECIDED to align IS 15355 : 2018/ ISO 8789:2009 with ISO 8789:2020 Rubber hoses and hose assemblies for liquefied petroleum gas in motor vehicles — Specification.

				The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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.
11.	IS 15361 : 2003	Raw natural rubber - Ribbed smoked sheets (RSS) - Guidelines	January, 2024	During the meeting, Dr. Siby Varghese informed that Panel 08 will provide the draft revision within 3 months.
12.	IS 15430 : 2003/ ISO 6447:1983	Rubber seals - Joint rings used for gas supply pipes and fittings - Specification for material	January, 2024	The Committee NOTED the information that the Draft Revision of IS 15430 : 2003 i.e. PCD 13(22205)F/ ISO 16010:2019 is under printing. (*see* item 12.4)
13.	IS 16210 : 2018/ ISO 8331:2016	Rubber and plastics hoses and hose assemblies - Guidelines for selection, storage, use and maintenance (First Revision)	May, 2023	The Committee DECIDED to reaffirm without any change since we have adopted the latest version.
14.	IS 1677 : 2018/ ISO 1401:2016	Rubber hoses for agricultural spraying (Third Revision)	May, 2023	The Committee DECIDED to reaffirm without any change since we have adopted the latest version.
15.	IS 1683 : 1994	Barytes for rubber industry specification (Second Revision)	April, 2023	The Committee requested BIS Sectt. to circulate this standard to the committee, by updating the cross-referred standards, for their comments for 1 month. If no comments received within 1 month, then the draft document shall be issued under wide circulation for 2 months. In case of any comments received within 1 month, the committee DECIDED to incorporate those comments in the draft document and then issue it under wide circulation for 2 months. The Committee also DECIDED that the document 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.

Mail sent

16.	IS 1684 : 1994 Mail sent	Red oxide of iron for rubber industry - Specification (Second Revision)	April, 2023	The Committee requested BIS Sectt. to circulate this standard to the committee, by updating the cross-referred standards, for their comments for 1 month. If no comments received within 1 month, then the draft document shall be issued under wide circulation for 2 months. In case of any comments received within 1 month, the committee DECIDED to incorporate those comments in the draft document and then issue it under wide circulation for 2 months. The Committee also DECIDED that the document 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.
17.	IS 1685 : 1975 Mail sent	Specification for whiting for rubber industry (First Revision)	April, 2023	The Committee requested BIS Sectt. to circulate this standard to the committee, by updating the cross-referred standards, for their comments for 1 month. If no comments received within 1 month, then the draft document shall be issued under wide circulation for 2 months. In case of any comments received within 1 month, the committee DECIDED to incorporate those comments in the draft document and then issue it under wide circulation for 2 months. The Committee also DECIDED that the document 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.
18.	IS 17138 : 2019/ ISO 18064:2014	Thermoplastic elastomers - Nomenclature and abbreviated terms	March, 2024	The Committee DECIDED to align IS 17138 : 2019/ ISO 18064:2014 with ISO 18064:2022 Thermoplastic elastomers — Nomenclature and abbreviated terms. The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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.

19.	IS 17295 : 2019	Petroleum Based Low PAH Process and Extender Oils for Rubber and Allied Industries	March, 2024	The Committee DECIDED to reaffirm without any change.
20.	IS 1741 : 2019	Latex Foam Rubber Products — Specification (First Revision)	March, 2024	The Committee DECIDED to circulate this standard to the licensees of BIS for this standard for their comments. Shri Praveen Mathew informed the committee that he will provide details of Coco-Latex who deals with this subject. The Committee further DECIDED to propose this standard as NWIP in ISO/TC 45/SC 4. Dr. R K Matthan and Dr. Siby Varghese agreed to lead this project at ISO. The Committee requested Dr. R K Matthan and Dr. Siby Varghese to submit Form 4 of ISO to BIS Sectt. regarding this proposal.
21.	IS 3399 : 2013	Zinc oxide for rubber industry - Specification (Third Revision)	April, 2023	The Committee requested LANXESS and Dr. Arup Chandra to review this standard and also to refer ISO 9298:2017 Rubber compounding ingredients — Zinc oxide — Test methods while reviewing. Dr. Rajkumar informed the committee that he will share the report on hazardous nature of ZnO with the committee. AIRIA informed the committee that he will also provide the name of the manufacturer for reviewing this standard. The decision on review will be taken up after receiving of comments.
22.	IS 3565 : 2018	Teats for feeding bottles - Specification (First Revision)	July, 2023	The Committee DECIDED to reaffirm without any change.
23.	IS 444 : 2017/ ISO 1403 :2005	Rubber hoses, textile - Reinforced, for general - Purpose water applications - Specification (Fifth Revision)	April, 2023	The Committee DECIDED to align IS 444 : 2017/ ISO 1403 :2005 with ISO 1403:2019 Rubber hoses, textile-reinforced, for general-purpose water applications — Specification. The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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 446 : 2017/ ISO 2398:2006	Rubber hoses, textile - Reinforced, for compressed air - Specification (Fifth Revision)	April, 2023	The Committee DECIDED to align IS 446 : 2017/ ISO 2398:2006 with ISO 2398:2016 Rubber hoses, textile-reinforced, for compressed air — Specification. The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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.
25.	IS 447 : 1988	Specification for rubber hose for welding (Fourth Revision)	April, 2023	During the meeting, IRMRA requested BIS Sectt. to forward the list of licensees of BIS for this standard to them. IRMRA also requested to forward this standard along with the copy of ISO 3821:2019 (Gas welding equipment — Rubber hoses for welding, cutting and allied processes) to them for review. The decision on review will be taken up after receiving of comments.
26.	IS 4588 : 1986	Specification for rubber, raw, natural (Third Revision)	April, 2023	The Committee noted the information that BIS Sectt. has assigned the Action Research Project to Sh. Vijay Kumar Gupta, Sc. D, BIS to co-ordinate with the Panel members for preparation of draft revision of the standard. During the meeting, Dr. Siby Varghese informed that Panel 09 will provide the draft revision within 3 months. **Composition of Panel 09:** i) Dr Siby Varghese, Rubber Board **(Convener)** ii) Shri Praveen Mathew, KA Prevulacanized iii) Shri Satish Abraham, Association of Latex Producers of India, Kerala iv) Shri Santosh Kumar, UPASI v) Shri Philip Jacob, Association of Planters of Kerala vi) Dr R K Matthan vii) Dr P Indumathi, MRF

				viii) Shri Niteesh K Shukla, ATMA ix) Shri Srikanth, AIRIA x) Shri Rajiv Tharian, Block Rubber Processors Association of India (IBRA) xi) Member Secretary, BIS
27.	IS 5190 : 1993	Code of packaging of natural rubber latex in drums (First Revision)	April, 2023	During the meeting, Dr. Siby Varghese informed that Panel 08 will provide the draft revision within 3 months.
28.	IS 5192 (Part 1) : 1994	Natural rubber compounds specification: Part 1 for moulded products (Second Revision)	April, 2023	The Committee created a Panel 12 for revision of this standard with following composition: i) Dr Siby Varghese, Rubber Board **(Convener)** ii) Dr. Rajkumar, IRMRA iii) Shri Srikanth, AIRIA iv) Shri Niteesh K Shukla, ATMA Dr. Siby Varghese informed that the Panel 12 will provide the draft revision within 2 months.
29.	IS 5192 (Part 2) : 1994	Natural rubber compounds specification: Part 2 for extruded products (Second Revision)	April, 2023	The Committee created a Panel 12 for revision of this standard with following composition: i) Dr Siby Varghese, Rubber Board **(Convener)** ii) Dr. Rajkumar, IRMRA iii) Shri Srikanth, AIRIA iv) Shri Niteesh K Shukla, ATMA Dr. Siby Varghese informed that the Panel 12 will provide the draft revision within 2 months.
30.	IS 5193 : 1998	Rubber sealing rings for domestic fruit and vegetable preserving jars specification (First Revision)	April, 2023	The Committee decided to forward the editable copy of this standard, by updating the cross-referred standards, to IRMRA, AIRIA and Shri Subhransu Gupta, Elkem, for review.
31.	IS 5270 : 1969	Specification for rubber grommets for general purposes	April, 2023	The Committee decided to forward the editable copy of this standard, by updating the cross-referred standards, to IRMRA and AIRIA for review.
32.	IS 5382 : 2018/ ISO 4633:2015	Rubber seals - Joint rings for water supply, drainage and sewerage pipelines - Specification for materials (Second Revision)	December, 2023	The Committee DECIDED to align IS 5382 : 2018/ ISO 4633:2015 with latest version of ISO 4633 Rubber seals — Joint rings for water supply, drainage and sewerage pipelines — Specification for materials *(currently at FDIS stage)*.

				The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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.
33.	IS 5598 : 1986	Code of practice for bale coating, packing and marking of natural rubber (First Revision)	April, 2023	The Committee noted the information that BIS Sectt. has assigned the Action Research Project to Sh. Vijay Kumar Gupta, Sc. D, BIS to co-ordinate with the Panel members for preparation of draft revision of the standard. During the meeting, Dr. Siby Varghese informed that Panel 09 will provide the draft revision within 3 months.
34.	IS 5894 : 2018/ ISO 3861:2005	Rubber hoses for sand and grit blasting - Specification (Third Revision)	May, 2023	The Committee DECIDED to align IS 5894 : 2018/ ISO 3861:2005 with ISO 3861:2021 Rubber hoses and hose assemblies for sand and grit blasting — Specification. The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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.
35.	IS 635 : 1982	Specification for oil and solvent resistant hose of rubber (Third Revision)	April, 2023	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (21838)** (*see* item 8.5)
36.	IS 636 : 2018	Non - Percolating flexible fire fighting delivery hose - Specification (Fourth Revision)	December, 2023	The Committee DECIDED to reaffirm without any change.
37.	IS 637 : 1994	Rubber tubings for general purposes - Specification (Second Revision J	April, 2023	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (22201)** (*see* item 8.6)

38.	IS 638 : 1979	Specification for sheet rubber jointing and rubber insertion jointing (Second Revision)	April, 2023	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (21620)** (*see* item 8.2)
39.	IS 6611 : 2019	Symbols for Rubbers and Latices (Second Revision)	March, 2024	The Committee DECIDED to reaffirm without any change.
40.	IS 7490 : 1997	Reclaimed rubber - Specification (First Revision)	April, 2023	The Committee NOTED the information that the draft revision was issued into Wide Circulation for second time vide **Doc No. PCD 13 (19224)**. The Committee deliberated on the comments received on the document (*see* item 8.1)
41.	IS 7503 : 2018/ ISO 1382:2012	Glossary of terms used in rubber industry	August, 2023	The Committee DECIDED to align IS 7503 : 2018/ ISO 1382:2012 with ISO 1382:2020 Rubber — Vocabulary. The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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.
42.	IS 7654 : 1987	Specification for rubber hose for chemicals (First Revision)	April, 2023	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (22202)** (*see* item 8.7)
43.	IS 8851 : 1994	Sulphur for rubber industry - Specification (First Revision)	April, 2023	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.
44.	IS 8862 : 1978	Specification for titanium dioxide (Anatase Type) for rubber industry	April, 2023	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.
45.	IS 8979 : 1997	Tetramethyl thiuram disulphide - Specification (Second Revision)	January, 2024	The Committee decided to ARCHIVE this standard. During the meeting, Dr. R K Matthan informed the committee that Tetramethyl thiuram disulphide is a dangerous chemical and he will give the international status report on banning of this chemical to the committee, in order to decide whether to withdraw or revise this standard later.
46.	IS 917 : 1976	Specification for activated calcium carbonate for rubber industry (First Revision)	April, 2023	The Committee decided to forward the editable copy of this standard to 20 Microns Ltd., whose contact details will be provided by Shri Subhransu Gupta, for review. The decision on review will be taken up after receiving of comments.

6.2 Review of Indian Standards Under Dual Numbering System

The Committee CONSIDERED the information as given in ITEM 6.2 of the Agenda and decided the following:

Sl. No.	**Indian Standard**	**Eqv.**	**Decision of the Committee in 34th meeting**
1	IS 7651 : 2021 / ISO 1436 :2017 Wire reinforced rubber covered hydraulic hose specification (Third Revision of IS 7651)	Identical under dual numbering	The Committee DECIDED to align IS 7651 : 2021 / ISO 1436 :2017 with ISO 1436:2020 Rubber hoses and hose assemblies — Wire-braid-reinforced hydraulic types for oil-based or water-based fluids — Specification. The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two- month time. The Committee also DECIDED that the document 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.
2	IS 12492 : 2023 /ISO 5774:2016 Specification for thermoplastics hoses textile reinforced for compressed air	Identical under dual numbering	The Committee DECIDED to align IS 12492 : 2023 /ISO 5774:2016 with ISO 5774:2023 Plastics hoses — Textile-reinforced types for compressed-air applications — Specification. The Committee requested BIS Sectt. to issue draft revision into Wide Circulation for a period of two- month time. The Committee also DECIDED that the document 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 7 REVISION OF PRE-2000 INDIAN STANDARDS

7.1 The Committee NOTED that BIS Management has decided to revise all the Indian Standards published before 2000. Total 52 standards of this Committee come under pre-2000 category. The Committee also NOTED that this Committee has already initiated the process of the revision. The Committee deliberated on the status of the Pre-2000 standards and DECIDED as follows:

Table 2 Pre-2000 Indian Standards

Sl. No	IS No.	TITLE	No. of Amds	Decision of the Committee in 34th meeting
1	IS 447 : 1988	Specification for rubber hose for welding (Fourth Revision)	1	Please see item 6.1, Table 1, Sl No. 25.
2	IS 635 : 1982	Specification for oil and solvent resistant hose of rubber (Third Revision)	1	Please see item 6.1, Table 1, Sl No. 35.

3	IS 637 : 1994	Rubber tubings for general purposes - Specification (Second Revision)	-	Please see item 6.1, Table 1, Sl No. 37.
4	IS 638 : 1979	Specification for sheet rubber jointing and rubber insertion jointing (Second Revision)	1	Please see item 6.1, Table 1, Sl No. 38.
5	IS 917 : 1976	Specification for activated calcium carbonate for rubber industry (First Revision)	1	Please see item 6.1, Table 1, Sl No. 46.
6	IS 1683 : 1994	Barytes for rubber industry specification (Second Revision)	-	Please see item 6.1, Table 1, Sl No. 15.
7	IS 1684 : 1994	Red oxide of iron for rubber industry - Specification (Second Revision)	-	Please see item 6.1, Table 1, Sl No. 16.
8	IS 1685 : 1975	Specification for whiting for rubber industry (First Revision)	-	Please see item 6.1, Table 1, Sl No. 17.
9	IS 1867 : 1975	Specification for rubber hot water bottles (First Revision)	2	The Committee NOTED the information that the Draft Revision of IS 1867 : 1975 i.e. PCD 13(21638)F is under printing. (*see* item 12.3)
10	IS 3692 : 1975	Specification for rubber closures, pharmaceutical (First Revision)	-	During the meeting, Dr. Rajkumar requested BIS Sectt. to forward the editable copy of this standard, with cross-referenced standards updated, to them for review.
11	IS 3867 : 1966	Specification for rubber ice bags	-	The Committee DECIDED to ARCHIVE this Standard since it is not used much nowadays.
12	IS 4135 : 1974	Specification for hospital rubber sheetings (First Revision)	1	The Committee created Panel 13 for revision of this standard with following composition: i) Dr. Siby Varghese ***(Convenor)*** ii) Shri Subhransu Gupta iii) Dr. Bharat, IRMRA iv) Shiva Texyarn Limited The Committee also decided to circulate this standard to the licensees of BIS for this standard for their views on revision of this standard. Dr. Siby Varghese also informed that he will look into the possibility of any research needed in revision of this standard and if any research is needed then he will submit the scope of the research project, names of the probable institutions to take up the research and intended outcomes of the research to be taken up, to BIS

				Sectt. within 1 month.
13	IS 4149 : 1967	Specification for post - Mortem rubber gloves	-	Shri Philip C Jacobs informed the committee that he will review this standard. The Committee also created a Task force having the following composition with a task to look for ISO standards related to Gloves under ISO/TC 45 which can be taken in next meeting for adoption: i) Dr. Siby Varghese ***(Convenor)*** ii) Shri Praveen Mathew iii) Shri Philip C Jacobs
14	IS 4588 : 1986	Specification for rubber, raw, natural (Third Revision)	3	Please see item 6.1, Table 1, Sl No. 26.
15	IS 5137 : 1990	Rubber hose for cement grouting specification (Second Revision)	-	The Committee NOTED the information that the Draft Revision of IS 5137 : 1990 i.e. PCD 13(21849)F is under printing. (*see* item 12.1)
16	IS 5190 : 1993	Code of packaging of natural rubber latex in drums (First Revision)	1	Please see item 6.1, Table 1, Sl No. 27.
17	IS 5192 (Part 1) : 1994	Natural rubber compounds specification: Part 1 for moulded products (Second Revision)	-	Please see item 6.1, Table 1, Sl No. 28.
18	IS 5192 (Part 2) : 1994	Natural rubber compounds specification: Part 2 for extruded products (Second Revision)	-	Please see item 6.1, Table 1, Sl No. 29.
19	IS 5193 : 1998	Rubber sealing rings for domestic fruit and vegetable preserving jars specification (First Revision)	-	Please see item 6.1, Table 1, Sl No. 30.
20	IS 5270 : 1969	Specification for rubber grommets for general purposes	1	Please see item 6.1, Table 1, Sl No. 31.
21	IS 5598 : 1986	Code of practice for bale coating, packing and marking of natural rubber (First Revision)	-	Please see item 6.1, Table 1, Sl No. 33.
22	IS 5821 : 1986	Specification for hot - Water hose of rubber (Second Revision)	-	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (21656)** (*see* item 8.3)

23	IS 6058 : 1970	Specification for rubber components for transfusion fluid bottles	1	The Committee NOTED the information and requested BIS Sectt. to send a reminder to MHD again, copy to Dr. Siby Varghese, for their inputs.
24	IS 6450 : 1971	Specification for rubbers for the dairy industry	1	The Committee DECIDED to circulate the editable copy of this standard, with cross-referenced standards updated, to IRMRA and AIRIA for review. The Committee also DECIDED to do a Gap analysis for making standards on rubbers used in Food Industry. The Task force has been created for this purpose having the following composition: i) Dr. Rajkumar, IRMRA ***(Convenor)*** ii) Rubber Board iii) FSSAI iv) Central Food Technological Research Institute (CFTRI), Mysore v) Food Tech Research and Incubation Centre (FTRI) vi) AIRIA vii) BIS Dr. Rajkumar also informed that he will provide any research project related to this task and will submit the scope of the research project, names of the probable institutions to take up the research and intended outcomes of the research to be taken up, to BIS Sectt.
25	IS 6693 : 1972	Specification for ebonite	1	The Committee DECIDED to send a reminder to the stakeholder, copy to AIRIA, for their inputs. The Committee further DECIDED that if no inputs is received within 1 month, then issue draft revision, with cross-referenced standards updated, into Wide Circulation for a period of two- month time. The Committee also DECIDED that the document 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.

26	IS 7351 : 1985	Specification for styrenated phenol (First Revision)	1	The Committee DECIDED to send a reminder to the stakeholder, copy to AIRIA and Shri Philip C Jacobs, for their inputs. The Committee further DECIDED that if no inputs is received within 1 month, then issue draft revision, with cross-referenced standards updated, into Wide Circulation for a period of two- month time. The Committee also DECIDED that the document 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.
27	IS 7490 : 1997	Reclaimed rubber - Specification (First Revision)	-	Please see item 6.1, Table 1, Sl No. 40.
28	IS 7497 : 1985	Specification for high abrasion furnace (Haf) carbon black (First Revision)	2	The Committee NOTED the information that Panel 06 is working to provide draft on New Work Item 'Carbon Black for Rubber Industry' and to prepare draft revisions of existing 06 Indian Standards on different grades of Carbon black namely, IS 7497: 1985, IS 8134: 1996, IS 8135: 1996, IS 10357:1990, IS 10358:1991 and IS 10387:1990. **Composition of the Panel 06:** i) Shri Alumkal Paulose Abraham, Head - Corporate Quality Assurance, PCBL Ltd., (***Convener)*** ii) Dr. Sabyasachi Ganguly, Director - Global Quality, Birla Carbon iii) Dr P Indumathi, MRF iv) Shri Chinmoy Ray, AIRIA v) Dr. Sarat Ghosh, Himadri Carbon (Invitee) vi) Member Secretary, PCD 13, BIS vii) Shri Niteesh K Shaukla, ATMA viii) Dr. Saikat Das Gupta, Hasetri ix) Dr. Abhijit Adhikari, Balkrishna Industries Ltd.
29	IS 7654 : 1987	Specification for rubber hose for chemicals (First Revision)	-	Please see item 6.1, Table 1, Sl No. 42.

30	IS 8134 : 1996	Intermediate super abrasion furnace (Isaf) carbon black - Specification (Second Revision)	1	Please see item 7.1, Table 2, Sl No. 28.
31	IS 8135 : 1996	Fast extrusion furnace (Fef) carbon black - Specification (Second Revision)	1	Please see item 7.1, Table 2, Sl No. 28.
32	IS 8483 : 1989	Specification for dibenzothiazyl disulphide (First Revision)	-	The Committee DECIDED to send a reminder to NOCIL, LANXESS and Finorchem for their inputs/comments on Indian Standard.
33	IS 8851 : 1994	Sulphur for rubber industry - Specification (First Revision)	-	Please see item 6.1, Table 1, Sl No. 43.
34	IS 8862 : 1978	Specification for titanium dioxide (Anatase Type) for rubber industry	-	Please see item 6.1, Table 1, Sl No. 44.
35	IS 8891 : 1978	Specification for pine tar for rubber industry	-	During the meeting, AIRIA informed the committee that he will provide the contact details of the expert for revision of this standard.
36	IS 8979 : 1997	Tetramethyl thiuram disulphide - Specification (Second Revision)	-	Please see item 6.1, Table 1, Sl No. 45.
37	IS 9406 : 1980	Specification for calcium silicate for rubber industry	-	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (21653)** (*see* item 12.2)
38	IS 9407 : 1980	Specification for light magnesium oxide for rubber industry	1	The Committee CONSIDERED the comments of Sh. Soumitra Chatterjee, 20 Microns Ltd. for revision of this standard and agreed to her comments. The Committee further requested BIS Sectt. to issue draft revision, by incorporating the comments of Sh. Soumitra Chatterjee, 20 Microns Ltd., into Wide Circulation for a period of two-month time. The Committee also DECIDED that the document 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.
39	IS 10130 : 1992	Vulcanized vegetable oils (Factice) for rubber industry - Specification (First Revision)	-	Please see item 6.1, Table 1, Sl No. 01.

40	IS 10357 : 1990	General purpose furnace [gpf (N - 660)] carbon black - Specification (First Revision)	1	Please see item 7.1, Table 2, Sl No. 28.
41	IS 10358 : 1991	Carbon black, super abrasion furnace [saf (N - 110)] - Specification (First Revision)	1	Please see item 7.1, Table 2, Sl No. 28.
42	IS 10387 : 1990	Semi - Reinforcing furnace [srf - Lm - Ns(N - 762)And srf - Hm - Ns(N - 774)] carbon black - Specification (First Revision)	1	Please see item 7.1, Table 2, Sl No. 28.
43	IS 10660 : 1983	Specification for rubber hydraulic hose with textile reinforcement	-	Please see item 6.1, Table 1, Sl No. 02.
44	IS 11001 : 1984	Specification for double centrifuged natural rubber latex	1	Please see item 6.1, Table 1, Sl No. 03.
45	IS 12076 : 1986	Specification for precipitated silica for rubber industry	3	The Committee DECIDED to circulate this standard to Madhu Silica Pvt. Ltd. AIRIA, further informed that he will provide the contact details of an expert from Madhu Silica Pvt. Ltd.
46	IS 12844 : 1989	Vinyl pyridine latex - Specification	-	Please see item 6.1, Table 1, Sl No. 04.
47	IS 13071 : 1991	Rubber hose,wire reinforced for sand and gravelsuction and discharge services - Specification	-	The Committee NOTED the information that the document has completed Wide Circulation vide **Doc No. PCD 13 (21822)** (*see* item 8.4)
48	IS 13101 : 1991	Natural rubber latex, creamed, ammonia preserved - Specification	1	Please see item 6.1, Table 1, Sl No. 05.
49	IS 13978 : 1994	Zinc diethyl dithio carbamate (Zdec) - Specification	-	Please see item 6.1, Table 1, Sl No. 06.
50	IS 13981 : 1994	Benzothiazyl - N - Morpholinyl sulphenamide (Mbs) - Specification	-	Please see item 6.1, Table 1, Sl No. 07.
51	IS 14127 : 1995	Insoluble(Amorphous) sulphur for rubber industry - Specification	-	The Committee requested LANXESS, NOCIL and Dr. Arup Chandra to provide the draft revision of this standard within 2 months. The Committee also decided to contact Oriental Carbon & Chemicals Limited (OCCL) for revision of this standard.

52	IS 14128 : 1994	N-(1,3-Dimethylbutyl)-N~-Phenyl paraphenylenediamine (6 PPD)	-	Please see item 6.1, Table 1, Sl No. 08.

ITEM 8 WIDE CIRCULATION DOCUMENTS FOR FINALIZATION

8.1 Doc. No. : PCD 13 (19224)WC2 Reclaimed Rubber - Specification (Second Revision of IS 7490)

Comments received by Sh. Adarsh Jalan, Designated Partner, TYROMER INDIA LLP	**Decision of the Committee in 34th meeting**
1) We, Tyromer India LLP, have entered into a Technical Collaboration to setup a plant to manufacture Devulcanized Rubber from Waste Tyres without any chemicals & additives. *2) This green technology is invented by Prof Costas of University of Waterloo, Canada and is patented.* *3) From the test results of Devulcanized Rubber (also called as TDP – Tyre Derived Polymer), it is observed that the end properties of the rubber compounds are better.* *4) Please find enclosed the Technical Data Sheet of TDP* TDP-B Technical Data Sheet 201218.p *5) We request you to incorporate a Classification for Devulcanized Rubber with the below specs:* ***Devulcanized Rubber – No Chemicals added / No additives added*** ***HTT-D : High Tensile Devulcanised Rubber*** ***WTR – D: Whole Tire Devulcanized***	The Committee NOTED the information as given in ITEM 8.1 of the Agenda. The Committee CONSIDERED the comments received from ***Sh. Adarsh Jalan, Designated Partner, TYROMER INDIA LLP*** on Doc. No.: PCD 13 (19224) WC2 and the committee DISAGREED to any changes in the document based on their comments because this green technology in India is at a very nascent stage. However, the committee NOTED this as a welcome project and when the technology matures and put into commercialization in India, these comments will be taken up at that stage and the standard will be revised accordingly. The Committee further DECIDED to finalize the document for printing without any changes.

Rubber *Specs for HTT-D:* *Acetone Extract : max 11.5%* *Mooney Viscosity: 50 +/- 15 or 20 else range of 40-65 MV* *Tensile Strength: min 9.5 Mpa* *Packaging: 10 Kg Sheet / Bale* *6) Apollo Tyres have accepted TDP (HTT-D) as a sustainable material for use in tyres and it also contributes to their sustainability targets. Please find enclosed the Press release regarding the same.* *We request you to please let us know the procedure for incorporating the standards for Devulcanized Rubber in the BIS Standards and further documents which are to be submitted from our end.*	

8.2 Doc. No. : PCD 13 (21620) C Specification for sheet rubber jointing and rubber insertion jointing (Third Revision of IS 638)

The Committee considered Item 8.2 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.

8.3 Doc. No. : PCD 13 (21656) C Specification for hot water hose of rubber (Third Revision of IS 5821)

The Committee considered Item 8.3 of the Agenda. The Committee deliberated on the following comments received from Sh. C Jayachandran, ARDL India and decided as follows:

S No.	Clause / Sub-clause No.	Paragraph No./ Figure No./ Table No.	Type of Comment	Decision of the Committee in 34th meeting
1	4.1.2, 4.3.3	1	Editorial	The Committee DISAGREED to the proposed changes as all the safety parameters is already covered in the standard.
Proposed Change/Modified Wordings			The denier of fabric and compound specific gravity Thickness will determine the	

	weight of unit length of hose. controlling weight is also essential. (Observation only)	The Committee further DECIDED to finalize the document for printing without any changes.

8.4 Doc. No. : PCD 13 (21822) C Specification for rubber hose wire reinforced for sand and gravel suction and discharge services (First revision of IS 13071)

The Committee considered Item 8.4 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.

8.5 Doc. No. : PCD 13 (21838) C Specification for oil and solvent resistant hose of rubber (Fourth Revision of IS 635)

The Committee considered Item 8.5 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.

8.6 Doc. No. : PCD 13 (22201) C Rubber Tubings for general Purposes Specification (Third Revision IS 637)

The Committee considered Item 8.6 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.

8.7 Doc. No. : PCD 13 (22202) C Rubber Hose for Chemicals Specification (second revision of IS 7654)

The Committee considered Item 8.7 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.

8.8 Doc. No. : PCD 13 (22204) C Rubber Hydraulic Hose with textile Reinforcement Specification (first revision of IS 10660)

The Committee considered Item 8.8 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.

ITEM 9 ISSUES ARISING OUT OF PREVIOUS MEETINGS

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

The Committee CONSIDERED Item 9.1 of the Agenda. During the meeting, Dr. Siby Varghese informed the Committee that he will provide the working draft within two weeks. The Committee further decided to circulate the draft as P-Draft to the committee members for 1 month.

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

The Committee CONSIDERED Item 9.2 of the Agenda. The Committee decided to make only one Indian standard for 'Determination of Migration of Hazardous and Restricted Substances from Rubber, Rubber Materials and Products' and 'Requirement and Test Method for determination of Microbiological Deterioration'. The Committee further requested Working Group 02 to prepare the draft standard in Indian Standard format on priority basis.

9.3 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 9.3 of the Agenda and DECIDED to add the list of 'GRAS (Generally Recognized as Safe)/GNRAS (Generally Not Recognized as Safe) of Rubber compounding additives and chemicals' in the draft Indian Standard as mentioned in Item 9.2 of the minutes, which is under development. The Committee further requested Working Group 02 to prepare the draft standard in Indian Standard format on priority basis.

9.4 Formulation of Indian Standards on 'Silicone gadgets for kitchen'

The Committee considered Item 9.4 of the Agenda and requested the Panel 07 to complete the work on priority basis.

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

The Committee considered Item 9.5 of the Agenda. During the meeting, Shri Subhranshu Gupta, Elkem (Convenor of Panel 10) informed the committee that he will provide the draft within 30 days. The Committee further decided to circulate the draft to committee members for their views.

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

The Committee considered Item 9.6 of the Agenda and requested BIS Sectt. to send a reminder to NOCIL, Lanxess and Finorchem, Vadodara for seeking inputs for the revision of the Indian Standard.

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

The Committee considered Item 9.7 of the Agenda and requested BIS Sectt. to send a reminder to NOCIL, Lanxess and Finorchem, Vadodara for seeking inputs for the revision of the Indian Standard.

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

The Committee considered Item 9.8 of the Agenda and requested BIS Sectt. to send a reminder to Dr Bharat Sharma, Techno Waxchem, IOCL, HPCL, BPCL, MRF and ATMA for seeking inputs for the revision of the Indian Standard.

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

The Committee considered Item 9.9 of the Agenda and DECIDED to drop this proposal for the time being since it is not manufactured in India.

9.10 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 9.10 of the Agenda. After detailed deliberations, the Committee requested BIS Sectt. to issue the draft into Wide Circulation for a period of two-months. 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.

9.11 Formulation of Indian Standard on 'Recovered Carbon Black'.

The Committee considered Item 9.11 of the Agenda and requested the Panel 11 to complete the work on priority basis.

9.12 New Work Items proposed by APCOTEX:

The Committee considered Item 9.12 of the Agenda. During the meeting, Dr. S. V. Govindaraju informed the committee that he will provide the working drafts on following subjects within 3 months:

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

9.13 Doc. No. : PCD 13 (18979)C Ammonia preserved nitrosamine free natural rubber latex concentrate - Specification (New Work Item)

The Committee considered Item 9.13 of the Agenda. During the meeting, Dr Siby Varghese, Rubber Board informed the Committee that he will provide his inputs/comments on the Wide Circulation draft Indian Standard, PCD 13 (18979)WC [issued into WC on 23.02.2022 for two months], within 2 weeks. The Committee further decided that if there are any comments then it will be deliberated in next meeting and if there are no major comments then the document shall be sent for printing after approval of the Chairman.

ITEM 10 INTERNATIONAL ACTIVITIES

10.1 NWIP Proposals for ISO/ TC 45/ SC 3 Raw materials (including latex) for use in the rubber industry

The Committee NOTED the information as given under Item 10.1 of the Agenda. During the meeting, Dr. R K Matthan and Shri Santosh Kumar informed the Committee that they will review the proposal for **'Technical guidelines/specifications for the Nitrosamine and Nitrosatables content of Specified Natural Rubbers and Low Protein Natural Rubbers-(NFNR and NFLNR)'** and finalize it within one week before submitting it to ISO. The Committee further DECIDED to submit the NWIP to ISO after the approval of the Chairman.

ISO_ NWIP_NF TSR .doc

10.2 Appointment of Dr. Saikat Das Gupta as ISO/TC 45 SC2/WG1 Convenor

The Committee NOTED the information as given under Item 10.2 of the Agenda.

10.3 71st meetings of ISO/TC 45 'Rubber and Rubber Products' scheduled during 30 Oct- 03 Nov 2023 in Bangkok, Thailand (face to face meeting) – Proposal for Indian Delegation

The Committee CONSIDERED Item 10.3 of the Agenda and APPROVED the following Delegation for participation in 71st meeting of ISO/TC 45 rubber and rubber products scheduled during 30 Oct- 03 Nov 2023 in Bangkok, Thailand:

Sl No	Nominee	Organization	Meetings to be attended
1.	Dr. K. Rajkumar, Chairman PCD 29 **(Head of Delegation)**	Indian Rubber Manufacturers Research Association	**1**. ISO / TC 45 – plenary (1st and 2nd) 2. ISO / TC 45 /SC 1 Plenary (1st and 2nd) 3. ISO / TC 45 /WG 10 4. ISO / TC 45 /SC 2/Plenary 5. ISO / TC 45 /SC 1 / WG 1 6. ISO / TC 45 /SC 1 / WG 2 7. ISO / TC 45 /SC 1 / WG 3 8. ISO / TC 45 /SC 1 / WG 4 9. ISO / TC 45/WG /16 10. CO meeting
2.	Dr. Siby Varghese, Chairman PCD 13	Rubber Research Institute of India, Rubber Board	1. ISO/ TC45 Plenary (1st and 2nd) 2. ISO/ TC45/ SC3 Plenary 3. ISO/ TC45/ SC4 Plenary 4. ISO/ TC45/ SC3/ WG2 5. ISO/ TC45/ SC3/ WG3 6. ISO/ TC45/ SC3/ WG4 7. ISO/ TC45/ SC3/ WG5 8. ISO/ TC45/ SC4/ WG5 9. ISO/ TC45/ SC4/ WG8 10. ISO/ TC45/ SC4/ WG9 11. ISO/ TC45/ SC4/ WG13 12. ISO/ TC45/ SC4/ WG15 13. ISO/ TC45/ SC4/WG16
3.	Dr. Bharat Kapgate	Indian Rubber Manufacturers Research Association	1. ISO / TC 45 – Plenary (1st and 2nd) 2. ISO / TC 45 /SC 2 Plenary 3. ISO / TC 45 /SC 2 / WG 1 4. ISO / TC 45 /SC 2 / WG 3 5. ISO / TC 45 /SC 3 / WG 3 6. ISO / TC 45 /SC 3 / WG 5 7. ISO / TC 45 /SC 4 / WG13

4.	Dr Ranjit K Matthan	In Personal Capacity	1. ISO/ TC 45 Plenary (1st and 2nd) 2. ISO/TC 45/ SC3 Plenary 3. ISO/TC 45/ SC4 Plenary 4. ISO/TC 45/ SC3/ WG2 5. ISO/TC 45/ SC3/ WG4 6. ISO/TC 45/ SC4 WG5 7. ISO/TC 45/ SC4 WG8 8. ISO/TC 45/ SC4 WG9 9. ISO/TC 45/ SC4 WG13 10. ISO/TC 45/ SC4 WG15 11. ISO/TC 45/ SC4 WG16
5.	Dr. Arup K. Chandra	In Personal Capacity	1. ISO/TC45 – PLENARY (1st and 2nd) 2. ISO/TC/45 SC/3 3. ISO/TC/45 SC/3 Plenary 4. ISO/TC/45 SC/3/WG2 5. ISO/TC/45 SC/3/WG3 6. ISO/TC/45 SC/3/WG4 7. ISO/TC/45 SC/3/WG5 **8.** ISO / TC 45 - Technical Seminar
6.	Sh. Srikanth Krishnamurthy	All India Rubber Industries Association	1. ISO/TC45 – PLENARY (1st and 2nd) 2. ISO/TC 45 WG 10 3. ISO/TC 45 WG 16 4. ISO/TC 45/SC 2/ WG1 5. ISO/TC 45/SC 2/ WG3 6. ISO/TC 45/SC 3 WG3 7. ISO/TC 45/SC 3 WG5 8. ISO/TC 45/SC 4 WG2 9. ISO/TC 45/SC 4 WG7 10. ISO/TC 45/SC 4 WG8 **11.** ISO/TC 45/SC 4 WG9
7.	Sh. Chinmoy Ray	All India Rubber	1. ISO / TC 45 – plenary (1st and 2nd) 2. ISO / TC 45 /SC 2– plenary 3. ISO / TC 45 /SC 3 – plenary 4. ISO / TC 45 /SC 4 – plenary 5. ISO / TC 45 /SC 2 / WG 1

			6. ISO / TC 45 /SC 2 / WG 3 7. ISO / TC 45 /SC 3 / WG 3 8. ISO / TC 45 /SC 3 / WG 5 9. ISO / TC 45 /SC 4 / WG13
8.	Philip C. Jacob	Association of Planters of Kerala	1. ISO/TC 45 -PLENARY (1st and 2nd) 2. ISO/TC 45/ WG 10 3. ISO/TC 45/ WG16 4. ISO/TC 45/SC 2/WG1 5. ISO/TC 45/SC 2/WG2 6. ISO/TC 45/SC 3/WG 2 7. ISO/TC 45/SC3/WG 4 **8.** ISO/TC 45/SC4/WG 5
9.	Sh. Santosh Kumar	United Planters Association of Southern India	1. ISO/ TC 45 Plenary (1st and 2nd) 2. ISO/ TC 45 SC 3 plenary 3. ISO/TC 45 SC 4 plenary 4. ISO/ TC 45/ WG 10 5. ISO/ TC 45/ WG 16 6. ISO/ TC 45/ SC 3 7. ISO/ TC 45 / SC 2 /WGI 8. ISO/ TC 45/ SC 2 / WG2 9. ISO/ TC 45/SC 4 10. ISO/ TC 45 / SC 3 / WG2 11. ISO/ TC 45/ SC 3/ WG 4 **12.** ISO/ TC 45/ SC4/WG 5
10.	Sh. Satish Abraham	Association of Latex Producers of India	1. ISO/ TC 45 – Plenary (1st and 2nd) 2. ISO/ TC 45 - SC 3 - Plenary 3. ISO/ TC 45 - SC 4 - Plenary 4. ISO/ TC 45 - WG 10 5. ISO/ TC 45 - WG 16 6. ISO/ TC 45 - SC 3/WG2 7. ISO/ TC 45 -SC3 /WG3 8. ISO/ TC 45 - SC3/WG4 **9.** ISO/ TC 45 - SC 4 /WG 5
11.	Dr. Saikat Das Gupta	HASETRI	1. ISO/ TC 45 Plenary (1st and 2nd)

			2. ISO/ TC45 WG16 3. ISO/ TC 45 SC2 WG1 4. ISO/ TC45 SC2 WG2 5. ISO/ TC45 SC2 WG3 6. ISO/ TC45 SC2 WG4 7. ISO/ TC45 SC2 WG5 8. ISO/ TC45 SC2 Plenary 9. ISO/ TC45 SC3 Plenary 10. ISO/ TC45 Final Plenary
12.	Sh. Praveen Mathew	K.A. Prevulcanised Latex Pvt.Ltd.	1.ISO/TC 45 Plenary (1st and 2nd) 2.ISO/ TC 45 SC 3 Plenary 3.ISO/ TC 45 SC 4 Plenary 4.ISO/ TC 45 WG 10 5.ISO/ TC 45 WG 16 6.ISO/ TC 45 SC 2 WG 1 7.ISO/ TC 45 SC2 WG 2 8.ISO/ TC 45 SC3 WG 2 9.ISO/ TC 45 SC 3 WG 4 10.ISO/ TC 45 SC 4 WG 5
13.	Sh. Niteesh Kumar Shukla	Automotive Tyres Manufacturers Association, New Delhi	1. ISO / TC 45 – Plenary (1st and 2nd) 2. ISO / TC 45 /SC 2 Plenary 3. ISO / TC 45 /SC 2 / WG 1 4. ISO / TC 45 /SC 2 / WG 3 5. ISO / TC 45 /SC 3 / WG 3 6. ISO / TC 45 /SC 3 / WG 5 7. ISO / TC 45 /SC 4 / WG13
14.	Sh. Rajat Gupta, Sc. B/AD	BIS	1. ISO/ TC 45 Plenary (1st and 2nd) 2. ISO/ TC 45/ SC1 -Plenary (1st) 3. ISO/ TC 45/ SC2 -Plenary 4. ISO/ TC 45/ SC3 -Plenary 5. ISO/ TC 45/ SC4 -Plenary 6. ISO/ TC 45/SC2/ WG 1 7. ISO/ TC 45/ SC3/ WG 2 8. ISO/ TC 45/ SC3/ WG 3 9. ISO/ TC 45/ SC4/ WG 5 10. ISO / TC 45 /SC 1 / WG 4 11. ISO/ TC 45/ SC4/ WG 16

The Committee further DECIDED to hold the Delegation briefing meeting on 22nd September 2023 at Chennai.

ITEM 11 STANDARDS NATIONAL ACTION PLAN

The Committee CONSIDERED Item 11 of the Agenda and DECIDED as follows on each Key Standardization Areas in the field of Rubber and Rubber Products Identified under SNAP 2022-2027:

Subjects under SNAP 2022-2027	**Decision of the Committee in 34th meeting**
1. Safe handling practices for rubber materials	The Committee DECIDED to create a Panel for formulation of guideline standard on Safe handling practices for rubber materials and requested members to submit their expression of interest to participate in this panel.
2. Guidelines/ protocols/ good practices for packing, storing and handling of cup limp	The Committee NOTED the information that this subject was dropped in 33rd meeting of PCD 13 sectional committee.
3. Raw materials and identification of hazardous substances	The Committee NOTED that this subject is taken up under 'GRAS (Generally Recognized as Safe)/GNRAS (Generally Not Recognized as Safe) of Rubber compounding additives and chemicals'. (*see item 9.3*)
4. EOLT (End of Life Tyres)	The Committee DECIDED to transfer this subject to TED 07 : Automotive Tyres, Tubes and Rims Sectional Committee.
5. Recovered Carbon Black	The Committee NOTED that this subject is already taken up in Panel 11. (*see item 9.11*)

6. White/ Latex Reclaimed Rubber	The Committee DECIDED to create a Panel for formulation of standards on White/ Latex Reclaimed Rubber under the convenorship of Dr. Siby Varghese. The committee also requested members to submit their expression of interest to participate in this panel.
7. Characterization of Polymer Bound Rubber Chemicals	The Committee DECIDED that this subject shall be taken as a research project. During the meeting, Dr. Rajkumar informed the committee that this subject can be dealt by IRMRA, Rubber Board and CSIR Labs.

ITEM 12 DOCUMENTS SENT FOR PRINTING

12.1 Doc. No.: PCD 13(21849) F Specification for rubber hose for cement grouting (Third Revision of IS 5137)

The Committee NOTED the information as given under Item 12.1 of the Agenda.

12.2 Doc. No. : PCD 13 (21653)F Specification for calcium silicate for rubber industry (First Revision of IS 9406)

The Committee NOTED the information as given under Item 12.2 of the Agenda.

12.3 Doc. No.: PCD 13 (21638) F Specification for rubber hot water bottles (Second Revision of IS 1867)

The Committee considered Item 12.3 of the Agenda. The Committee deliberated on the following observations received from Sh. C Jayachandran, ARDL India and decided as follows:

Observations received from Sh. C Jayachandran, ARDL India	**Decision of the Committee in 34th meeting**

Observations: 1. Hope the tolerance of after air and immersion aging and also Tension set specification is fixed based on field product test data. 2. Minimum 5year service life should reflect in specification	The Committee NOT AGREED to observation no. 1 since it is already covered in the document. The Committee NOT AGREED to observation no. 2 since it is difficult to have 5 Year service life for rubber hot water bottles. The Committee further DECIDED to print the standard and if any changes is required later, an Amendment to the standard will be issued.

12.4 Doc. No.: PCD 13 (22205)F Elastomeric seals Material requirements for seals used in pipes and fittings carrying gaseous fuels and hydrocarbon fluids (first revision of IS 15430)

The Committee NOTED the information as given under Item 12.4 of the Agenda.

12.5 PCD 13 (21812) F Electrically Bonded Road and Rail Tanker Hose of Rubber, Resistant to Petroleum Products — Specification (First Revision of IS 10733)

The Committee NOTED the information as given under Item 12.5 of the Agenda.

12.6 Doc. No.: PCD 13(21849) F Specification for rubber hose for cement grouting (Third Revision of IS 5137)

The Committee NOTED the information as given under Item 12.6 of the Agenda.

12.7 Doc. No.: PCD 13 (19802) Rubber raw natural and raw synthetic general guidance on storage

The Committee NOTED the information as given under Item 12.7 of the Agenda.

12.8 Doc. No.: PCD 13 (19803) Rubber Gasket for Pressure Cooker ─ Specification (Second Revision)

The Committee NOTED the information as given under Item 12.8 of the Agenda.

12.9 Doc. No.: PCD 13 (19808) Rubber or Plastics Coated Fabrics for Water Resistant Clothing - Specification (Second Revision)

The Committee NOTED the information as given under Item 12.9 of the Agenda.

12.10 Doc. No.: PCD 13 (19809) Specification for rubber hoses and hose assemblies for transferring anhydrous ammonia (First Revision of IS 11659)

The Committee NOTED the information as given under Item 12.10 of the Agenda.

12.11 Doc. No.: PCD 13 (19819) Specification for rubber hoses and hose assemblies wire or textile reinforced single pressure types for hydraulic applications ISO 18752 : 2022 IDT

The Committee NOTED the information as given under Item 12.11 of the Agenda.

12.12 Doc. No.: PCD 13 (19872) Specification for thermoplastic hoses (textile reinforced) for water - general purpose (First Revision of IS 12585)

The Committee NOTED the information as given under Item 12.12 of the Agenda.

12.13 Doc. No.: PCD 13 (19882) Specification for thermoplastics hoses textile reinforced for compressed air

The Committee NOTED the information as given under Item 12.13 of the Agenda.

12.14 Doc. No.: PCD 13 (19884) Specification for rubber hose and hose assemblies for oil suction and discharge service

The Committee NOTED the information as given under Item 12.14 of the Agenda.

12.15 Doc. No.: PCD 13 (19893) Rubber Hoses and Hose Assemblies for Water Suction and Discharge - Specification (Third Revision)

The Committee NOTED the information as given under Item 12.15 of the Agenda.

12.16 Doc. No.: PCD 13 (19895) Specification for rubber hoses and hose assemblies for measured fuel dispensing systems

The Committee NOTED the information as given under Item 12.16 of the Agenda.

12.17 Doc. No.: PCD 13 (19896) Rubber and plastics hoses and hose assemblies vocabulary

The Committee NOTED the information as given under Item 12.17 of the Agenda.

12.18 Doc. No.: PCD 13 (20136) Styrene-butadiene rubber latex specification part 1 non-carboxylated (Second Revision of IS 11356)

The Committee NOTED the information as given under Item 12.18 of the Agenda.

12.19 Doc. No.: PCD 13 (20137) Styrene-butadiene rubber latex specification part 2 carboxylated (Second Revision of IS 11356)

The Committee NOTED the information as given under Item 12.19 of the Agenda.

12.20 Doc. No.: PCD 13 (20188) Butadiene Rubber — Specification

The Committee NOTED the information as given under Item 12.20 of the Agenda.

12.21 Doc. No.: PCD 13 (21062) Flexible rubber tubing for liquefied petroleum gas specification (Second Revision)

The Committee NOTED the information as given under Item 12.21 of the Agenda.

ITEM 13 COMMENTS ON PUBLISHED INDIAN STANDARDS

13.1 The Committee CONSIDERED the comments received from BASF India Ltd. on IS 11356 (Part 2) Carboxylated: 2023 (Second revision) through mail dated 13th July 2023:

Comments received from BASF India Ltd.	**Decision of the Committee in 34th meeting**
Comments are given at Annex 1.	The Committee DECIDED to forward the comments to Panel 05 for consideration. The Committee further DECIDED that if the Panel wants to invite BASF for deliberations, then they can send them the invitation in the Panel 05.

ITEM 14 DATE AND PLACE FOR THE NEXT MEETING

14.1 The Committee decided to hold the next meeting of PCD 13 Sectional Committee in 4th week of November 2023. Date and Venue will be decided in consultation with the Chairman**.**

ITEM 15 ANY OTHER BUSINESS

15.1 Inputs on transfer of subject from PCD 12 to PCD 13

The Committee considered Item 14.1 of the Agenda and after detailed deliberations, the Committee AGREED to the transfer of the subject i.e. Polyolefin Elastomer, from PCD 12 to PCD 13 Sectional Committee.

15.2 Dr. Rajkumar, IRMRA, invited all the members to the IRMRA's 24th Rubber Conference and Expo to be held in Chennai from 21st to 23rd September 2023.

14.3 In absence of any other business, the meeting ended with the vote of thanks to the Chairman and members for their active participation in the meeting.

Annex 1

Comments received from BASF

13th July 2023

To,

Smt. Meenal Passi
Scientist E, Head PCD
Standardization Department,
Bureau of Indian Standards (BIS)9,
Bahadur Shah Zafar Marg New
Delhi-110002

Subject: IS 11356 (Part 2) Carboxylated: 2023 (Second revision)

Dear Madam,

Thank you for your valuable time for meeting our team on 5th July at your office. As discussed, we areof the opinion that the current Styrene Butadiene Rubber (SBR) Latex standard IS 11356 (Part 2) Carboxylated: 2023 published in May 2023 has limited applicability and does not meet the requirements of various other industries especially Paper and Construction industry where we have been a major supplier for over two decades.

We have manufacturing facilities at Dahej and Mangalore and we supply approx. 3000 MT per monthof different Carboxylated SBR latex grades to paper and construction industry. Based on the IS 11356 (Part 2) specifications, few of our SBR grades are meeting the current standard. Other grades (around 30%) differ with respect to parameters of specific gravity, surface tension or viscosity as these are formulated in view of the specific needs of the user industry.

There is an urgent need to further revise the SBR standard, as we will not be able to supply the grades in accordance with IS 11356 (Part 2) once the standard comes into effect in November, 2023. This will lead to a supply gap, which will result in production losses at paper mills producing packagingboard and graphical paper. The monthly loss in paper production might aggregate to 45,000 to 50,000 MT. Eventually, the supply gap may attract import of finished goods like coated paper and packagingboard, and negatively impacting the Make in India theme. This will adversely affect local manufacturers.

Prima facie, the above standard of SBR latex seems to be covering a very broad range of industry from rubber, textile, paper, construction, etc. Also, the concerned Sectional Committee has more representations from rubber industry and only one representation from paper and construction industry. We believe that covering such a broad range of applications of Carboxylated SBR latex in a single standard is not appropriate. If this is done, then the specification range will be too wide, and it

might defeat the purpose of controlling the quality of the products.

Based on above consideration, we request you consider application-wise standards, as follows:

1. Tyre cord dipping and linings for proofed goods like firefighting hoses
2. Construction, textiles, compounding, adhesives for footwear and paper industry, carpet backings, upholstery

We **request you to bifurcate the standard and amend the range** for the construction, textiles, compounding, adhesives for footwear and paper industry, carpet backings, upholstery, as per **Annexure A** based on the technical considerations enunciated therein.

We would also like to highlight the following additional considerations in support of our request for amendment:

- BASF is a global supplier of polymer dispersions. We are a leading SBR Latex supplier in India and have been supplying grades of SBR Latex to many customers across industries for over a decade.
- Our products technically suit the end user requirements and are technically approved by our customers after multiple and rigorous rounds of testing and, therefore, any changes in the specifications of the product will lead to disruption of supplies and production for our customers and eventually in the marketplace. Please find attached letter from our flagship customers in support of our request.
- If the technical characteristics are not amended, then we stand to lose approximately Rs. 65 crore worth of business per year, thereby directly impacting our investments, employees, vendor eco-system as well as government revenues, etc.
- In future there will be newer SBR Latex products, which might require a slightly broader range of technical properties and bifurcating the standard will support future innovation, especially from a sustainability perspective as we will also endeavor to develop SBR Latex having a lower Product Carbon Footprint
- In line with the Government's 'Make in India' policy, we have two plants in India (Gujarat and Karnataka) where our SBR Latex products are being manufactured. In fact, last year, we have nearly doubled our polymer dispersions capacity at our Gujarat plant to serve the fast-growing needs of our customers.

Pending consideration and implementation of our above proposal for amendment of the requirements, we sincerely request you to kindly allow us to continue with the manufacture and supply of SBR Latex grades falling outside the requirements of this standard to our customers to avoid any market disruption and hardship to the end consumers.

We trust you will consider our request for amendment positively. Kindly let us know if you need any further information or clarifications, and kindly provide us with an opportunity to explain and represent our case.

We have applied online to be the part of the Sectional Committee for PCD 13. We request you to include us and invite us in the next meeting.

We assure you of our best co-operation at all times.

Thanking you,

With Regards,

Annexure A

Table 1 (clause 3.1) Sl. No iii Column 5:

It covers testing Surface Tension, Dynes/cm, at 25°C using IS 9316 (Part 1)/ ISO 14092) method. The range given is 30-55 Dynes/cm

BASF Request dated 15th Nov 2022: Surface tension Dynes / cm at 25°C Not relevant to paper applications making this mandatory will create increase workload to testing lab without any value additionto customer. This parameter to be removed from the specification

BASF Request now – Surface tension plays a significant role when the chemical is applied 'as-received' on the substrate. For the industries coming under this standard, the SBR based products are always compounded with other additives at the user's premises. Addition levels of Carboxylated SBR latex is around 10-20% weight-wise in the compound. Surface tension of SBRs will have negligible effect on end-product performance in this case. Based on these facts we have asked for deletion of this property in our earlier communication. But since this property is retained in the standard, we seek your kind amendmentin the range to 30-65 Dynes/cm.

Table 1 (clause 3.1) Sl. No iv:

It covers testing of Specific Gravity using IS 3104 (Part 2) method with range of 1.00 - 1.04

BASF Request dated 15th Nov 2022: 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.

BASF Request now – Concerned Industries uses SBR based products on weight basis and not on volumetric basis. All the commercial transaction also takes place on weight basis only.

Further, specific gravity of the product is governed by product concentration (solids%) and additives used. Lower solids product will have lower specific gravity and vice versa. In many cases, the product concentration is designed as per the user's recipe. For example, a formulator for construction industry needs 45% solids material to suit their final product. Similarly high solids products are required for specific applications at user.

Due to micro foam in the product, there are chances of error. Also due to the sticky nature of the SBR, it holds the testing equipment (hydrometer – as per the test method mentioned in the standard IS 3104 - Part 2) and can result in erroneous readings. For perfect testing we need to condition the samples for longer time. Considering the error in testing the specific gravity range mentioned in the standard (1-1.04)is narrow for the solids range of 30-65%. We request you to broaden the range to 1.0-1.15.

One of our largest selling Carboxylated SBR Latex grade to paper industry for more than five years, is not fully in accordance with the range of Specific Gravity and Surface Tension. The surface tension value of this product is 62 Dynes/cm and specific gravity is 1.09. This product is widely used in packaging board (food and general packaging) and graphical paper (paper for books/magazines, and flexible packaging). If we discontinue the production of this grade, there will be short supply. It will result in disruption of production at paper mills. Ultimately it might lead to more imports of Carboxylated SBR Latex to fill up the gap.

Table 1 (clause 3.1) Sl. No vi:

It covers testing of Brookfield Viscosity using IS 9316 (Part 2) / ISO 1652 method with range of 20 – 1000mPa.s.

BASF Request dated 15th Nov 2022: Brookfield viscosity range to be increase as few of our currentproducts viscosity range start at 20 mPas. Viscosity range to be 20 – 1000 mPas instead of 500 – 1000 mPas.

BASF Request now –

We have recently launched a new carboxylated SBR for primer application and for application of this product, the viscosity needs to be on higher side and the maximum viscosity needs to be around 4000 mPa.s to meet the application requirement for the desired coverage. The lesser viscosity would result in less amount of application of product and may affect the performance properties in the final application. The amount of SBR latex applied can be controlled via high viscosity. Hence, we would request herewithto increase the viscosity to 4000 mPa.s.

Table 1 (clause 3.1) Sl. No vi:

It covers testing of Brookfield Viscosity using IS 9316 (Part 2) / ISO 1652 method with range of 20 – 1000mPa.s.

BASF Request dated 15th Nov 2022: 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 proposed to selection of spindle and rpm to be decided by manufacturer depending on the product viscosity and torque.

BASF Request now –

For the higher viscosities like 4000 as proposed above, Spindle 2, 12 RPM at 250C, the viscosity maybe out of range and may need different spindle, hence we propose to use the spindle (L1 -L3 or R1 -R3) and RPM accordingly so that the torque falls within the 10% to 90% as specified in the test method of IS 9316 (Part 2) /ISO 1652.

Attendance of 34th meeting of PCD 13 held on 14th July 2023 at IRMRA, Thane

Organization	Member Name	Email Id
Rubber Research Institute of India, Rubber Board, Kottayam	Dr Siby Varghese **(*Chairperson*)**	siby@rubberboard.org.in
All India Rubber Industries Association, Mumbai	Shri Srikanth Krishnamurthy	srikanth.krish@gmail.com
Apcotex Industries Limited, Mumbai	Dr. SV Govindaraju	svgovindaraju@apcotex.com
Association of Latex Producers of India, Kerala	Shri Satish Abraham	satishpad@yahoo.com
Association of Planters of Kerala, Thiruvananthapuram	Shri Philip C. Jacob	philip@ooppoottil.com
United Planters Association of Southern India	Sh. Santosh Kumar	santoshkumar@harrisonsmalayalam.com
Automotive Tyres Manufacturers Association, New Delhi	Shri Niteesh Shukla	director-ittac@atmaindia.org.in
Directorate General of Quality Assurance, Ministry of Defence, New Delhi	Shri Jabar Mohammad	medssc@defstand.gov.in
Flame Retardants Association of India, Gurugram	Shri P.V. Murali Mohan	muralimohandel@gmail.com
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PCD, BIS	Shri Rajat Gupta, Sc.B/AD	Pcd13@bis.org.in

Invitees:

1. Dr Sawar Dhanania, Chairman, Rubber Board
2. Shri Subranshu Gupta, Elkem