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| **(PETROLEUM, COAL & RELATED PRODUCTS DEPTT.)** | | |
| **AGENDA** | | | |
| **Plastic Sectional Committee, PCD 12** | | | **32nd Meeting** |
| **DATE & TIME** | | 18 January 2023, 1030h | |
| **VENUE** | | BIS HQ, Manak Bhawan/ Virtual | |
| **CHAIRMAN:** | | Prof. (Dr.) Shishir Sinha, Director General - CIPET | |
| **MEMBER SECRETARY** | | Shivam Dwivedi, Scientist ‘B’ (PCD), BIS | |

**Item 0 WELCOME AND OPENING REMARKS**

* 1. **Welcome Address by Bureau of Indian Standards**
  2. **Opening Remarks by the Chairman**

**Item 1 CONFIRMATION OF MINUTES OF THE LAST MEETING**

The minutes of the 31st meeting of Plastic Sectional Committee, PCD 12 held on 07 July 2022 (Virtual Meeting) was circulated to the Committee members vide Reference: PCD 12/A-2.31 dated 19 July 2022 through BIS portal.

No comments received.

The Committee may **CONFIRM** the minutes, as circulated*.*

**Item 2 SCOPE AND COMPOSITION OF COMMITTEE**

**2.1** The scope and composition of the Committee is given below:



The Committee may **NOTE**.

**2.2** As decided by the Committee in its last meeting, theattendance of Committee members (last 3 meetings) with their functions is given below:



The Committee may **NOTE** and **DECIDE**.

**2.3** **Request for Representation in Plastics Sectional Committee, PCD 12**

**2.3.1 RMG Polyvinyl India Limited**

A request has been received from **M/s RMG Polyvinyl India Limited**, for representation in PCD 12 Sectional Committee. They have nominated **Shri Ashish Mohan and Shri A. N. Singh**, to be the member of the Committee. The letter from the organization is given below:



The Committee may **CONSIDER**.

**Item 3 ISSUES ARISING OUT OF THE PREVIOUS MEETINGS**

* 1. **Review/Revision of Indian Standards**

In its previous meetings, the Committee had decided to take up the review/revision of Indian Standards due for review. The present status of the review/revision of the standards are given below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Indian Standard** | **Decision of the committee in its last meeting** | **Current Status** |
|  | IS 2508: 2016 Polyethylene films and sheets — Specification (*third revision*) | In the last meeting Dr S N Yadav, the Convenor of the Panel (PCD12/P-2) informed the Committee that draft revision of the standards are yet to be finalized by the Panel and informed the Committee that the Panel will provide the draft revision within 15 days. The Committee agreed to the request of Dr S N Yadav and requested him to provide the draft revisions within 15 days.  The committee further requested BIS Sectt. to issue the draft revisions into wide circulation for a period of 2 months after the receipt of the draft from the panel. | The draft revision is yet to be received from the Panel. |
|  | IS 14995: 2001 Stretch cling films — Specification |
|  | IS 14611: 2016 Multilayered cross laminated sheets/tarpaulins/covers/agricultural  films - Specification (First Revision) |
|  | IS 10889:2004 High density  polyethylene films (First Revision) | Dr S N Yadav, the Convenor of the Panel (PCD12/P-2) informed the Committee that IS 2508 : 2016 already covers the HDPE films and hence recommended to withdraw the IS 10889. The Committee after due deliberation agreed on the recommendation of Dr S N Yadav and has decided to recommend the Petroleum, coal and Related Products Division Council (PCDC) to withdraw the IS 10889. | IS 10889 : 2004 may be continued till the draft revision of IS 2508 is published. Further, the revised IS 2508 may supersede IS 2508 : 2016 and IS 10889 : 2004. |
|  | IS 10149: 1982 Positive list of constituents of styrene polymers in contact with foodstuffs, pharmaceuticals and drinking water | In its last meeting, the Committee has constituted a Panel (PCD 12/P-4) under the Convenorship of Shri Kanak Das for revision of the standard. Further, the Committee had requested the Panel to provide the draft revision within 6 months. | The draft revision is still awaited from the Panel. |
|  | IS 1461: 1984 Specification for plastic buttons (Thermosetting) (Second Revision) | The Committee in its last meeting noted the recommendation of Shri Abhishek, Bangalore sales regarding inclusion of defense sector for revision of the standard. Chairman, PCD 12 provided the details of Shri Alok, DMSRDE and requested BIS Sectt to contact him for details of experts. | Expert from defense sector has been contacted and he has agreed on the suggestions of Shri Abhishek, Bangalore Sales to modify the scope. He further added that If unsaturated polyester resin will be added then testing criteria may also change.  Further, the Committee may decide to modify the scope of the IS as per the suggestion of Shri Abhishek.  The Committee may **NOTE**. |
|  | IS 2076: 1981 Specification for unsupported flexible polyvinyl chloride sheeting (First Revision) | The Committee **NOTED** that inputs were received from Shri Arvind Goenka M/s RNG Polyvinyl India Ltd on the standard. The Committee after deliberations have requested BIS Sectt to contact Shri Arvind Goenka for providing draft for revision of standard. Once received, the draft to be circulated to the Committee members as P draft for a period of 1 month. | The draft received from M/s RNG Polyvinyl India Ltd has been circulated to the Committee members for comment through BIS portal. The draft is given below.    No comments have been received from Committee members.  The Committee may **DECIDE**. |
|  | IS 2249: 1984 Specification for adhesives (Liquid) for leather – Beltings (First Revision) | The Committee **NOTED** the item of the agenda. Shri Atin Chaudhuri, Convenor of the Adhesive Subcommittee informed the Committee that the PCD 12: 9 will look for the inputs and will provide the recommendation shortly. | The Subcommittee was unable to find the details of relevant stakeholder and once again in its last meeting held on 22 December 2022 requested Shri Jitendra Kapadia, M/s Henkel to provide details of stakeholders who can be contacted for the inputs on the subject.  The Committee may **NOTE**. |
|  | IS 2257: 1989 Paper adhesives, liquid gum and office paste type – Specification (Third Revision) | To be discussed after the receipt of the inputs from Adhesive Subcommittee, PCD 12:9. | The Subcommittee was unable to find the details of relevant stakeholder. In its last meeting held on 22 December 2022, the Subcommittee decided to look for the stakeholders who can be contacted for the inputs on the subject.  The Committee may **NOTE**. |
|  | IS 2560: 1979 Specification for rubber – Based adhesives for tubes, non – Curing (First Revision) |
|  | IS 2562: 1979 Specification for rubber – Based adhesives for tyres and tubes, curing (First Revision) |
|  | IS 4663: 1968 Specification for permanent rubber - Based adhesives for footwear industry |
|  | IS 2561: 1963 Specification for rubber – Based adhesives for the automobile industry | The Adhesive Subcommittee in its last meeting held on 22 December 2022 requested the Panel to provide the draft revision by the end of Feb 2023.  The Committee may **NOTE**. |
|  | IS 9843:1991 Code of Practice for Use of Adhesives for Packaging | To be discussed after the receipt of the inputs from Adhesive Subcommittee, PCD 12:9. | The recommendations from the Adhesive Subcommittee are still awaited.  The Committee may **NOTE**. |
|  | IS 4185: 1989 Adhesive paper tapes — Specification (*first revision*) | To be discussed after the receipt of the inputs from Adhesive Subcommittee, PCD 12:9. | The recommendations from the Adhesive Subcommittee are still awaited.  The Committee may **NOTE**. |
|  | IS 13262 : 1992 Pressure sensitive adhesive tapes with Plastic Base – Specification |
|  | IS 3687: 1987 Specification for pressure sensitive adhesive cloth tapes (Second Revision) |
|  | IS 7393: 1974 Specification for adhesive, bitumen emulsion | To be discussed after the receipt of the inputs from Adhesive Subcommittee, PCD 12:9. | The recommendations from the Adhesive Subcommittee are still awaited.  The Committee may **NOTE**. |
|  | IS 4761: 1968 Specification for unsupported PVC rainwear | Committee in its last meeting requested panel (PCD12/P-20) to review the standard and provide its recommendation. | The first meeting of the Panel (PCD12/P-20) was held on 8th September 2022.  Minutes of the meeting are given below.    The Committee may **NOTE** and **DECIDE**. |
|  | IS 9848: 1987 Specification for briefcases, plastic body (First Revision) | The Committee in its last meeting requested panel (PCD12/P-20) to review the standard and provide its recommendation. | -do- |
|  | IS 3693: 1966 Specification for plastic spectacle frames | Committee in its last meeting requested panel (PCD12/P-20) to review the standard and provide its recommendation. | -do- |
|  | IS 10734: 1983 Specification for case, vanity, moulded body | The committee in its last meeting constituted a panel (PCD12/P-20) for reviewing the pre – 2000 Standards and to look for their relevancy in today’s scenario and provide the recommendation to the Committee for further discussions on the subject.  Committee also requested BIS Sectt. to again contact experts for their inputs. | -do- |
|  | IS 11988: 1986 Specification for hot seal patches | Committee in its last meeting requested panel (PCD12/P-20) to review the standard and provide its recommendation. | -do- |
|  | IS 7569: 1987 Specification for cast acrylic sheets for use in luminaires (Second Revision) | Committee in its last meeting requested panel (PCD12/P-20) to review the standard and provide its recommendation.  The Committee also requested BIS Sectt to contact ETD, BIS for their inputs, if any. | -do-  Further, as suggested by the Committee, ETD, BIS has been contacted for inputs.  Inputs yet to be received.  The Committee may **NOTE** and **DECIDE**. |
|  | IS 9220: 1979 Specification for tableware made of melamine plastics | The Committee in its last meeting requested BIS Sectt to contact Shri Achal Thakkar once again for his inputs for the revision of the Standard. | Inputs are still awaited.  The Committee may **NOTE.** |

**3.2 Status of New subject area for review/ formulation of Indian Standards as per the decision of DCPC.**

The Committee noted that Secretary, DCPC requested BIS to provide the standards on the following new subjects at the earliest. The Committee after detailed deliberations has decided as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl No.** | **HS Code/ Commodity** | **Indian Standard Status** | **Decision of the committee** | **Current Status** |
| **1** | **39049000**  CPVC Resin | IS 15225:2002 Chlorinated Polyvinyl Chloride Compounds used for Pipes And Fittings — Specification | Committee in its last meeting decided to send the document for printing since no comments were received during the WC Period. | The standard is published as IS 17988 : 2022 Chlorinated polyvinyl chloride CPVC resin — Specification |
| **2** | **39089090**  Polyamide 6, Nylon Chips Volgamid  Nylon 6 Chips Volgamid | IS 13463: 1992 Polyamide Nylon 6 Material for Moulding and Extrusion | The committee in its last meeting noted that the document has been sent for printing with document number PCD/12/18319. | The standard has been published as IS 13463 : 2022. |
| **3** | **39069090**  a) Acrylic Acid Polymers | No Indian Standards are available. | Committee in its last meeting decided to reconstitute the panel (PCD 12/ P-6) responsible for formation of standard on acrylic acid polymers and requested panel under the Convenorship of Dr Saptarshi Ray to provide draft within 3 months. | Draft is still awaited from Panel (PCD 12/ P-6). The first meeting of the Panel is scheduled on 12 January 2022. |
| b)Partially Hydrolysed Polyacrylamide | No Indian Standards are available. | Committee in its last meeting decided to send the document for printing since no comments were received during the WC Period. | The standard is published as IS 18103 : 2022 Plastics — Polyacrylamide materials designation system and specifications |
| c) Sodium Polyacrylate | No Indian Standards are available. | Committee in its last meeting decided to send the document for printing since no comments were received during the WC Period. | The standard is published as IS 17992 : 2022 Superabsorbent polymer — Sodium polyacrylate resin for hygiene products — Specification |
| **4** | **39069090**  a) Acrylic Acid Polymer | No Indian Standards are available. | See 3.2 (3 a) | See 3.2 (3 a) |
|  | b) PAM | No Indian Standards are available. | See 3.2 (3 b) | See 3.2 (3 b) |
|  | c) Sodium Polyacrylate | No Indian Standards are available. | See 3.2 (3 c) | See 3.2 (3 c) |
| d) Super Absorbent Polymer |
| **5** | **39011090**  XLPE | IS 7098 (Part 1, 2 & 3) | The Committee **NOTED** that the draft received from Shri M D Gupta, Kalpana Industries. The Committee also noted that the requirements given in the draft is like the requirements given in IS 7098 (Part 1), (Part 2) and (Part 3). The Committee further requested BIS Sectt to contact the experts from M/s KLJ Plastics, Industries in Daman (Details to be provided by Dr E Sundaresan, Plastindia).  The Committee further requested BIS Sectt to contact Shri O P Sharma to contact Ministry of Power for their requirements. | The Clarification is yet to be received from Shri O P Sharma. |
| **6** | **39019090** |  |  |  |
| a) Ethylene Methacrylic Acid Copolymer | IS 13576:1992 Ethylene Methacrylic Acid (EMAA) Copolymers and Terpolymers for Its Safe Use in Contact with Foodstuffs Pharmaceuticals and Drinking Water | In its last meeting the committee requested BIS Sectt. to contact expert from Dow, M/s Arkema for their inputs. | The draft is still awaited from Dr. SK Jain, CIPET  Following comments were received from M/s Dow. |
| c) Polyolefin elastomer | No Indian Standards are available. | Please refer 3.22. |  |
| **7** | **39079990**  a) Pet Flakes | No Indian Standards are available. | In its last meeting the committee requested panel PCD12/P-8 under the convenorship of Dr. Vijay Habbu to provide the draft within 2 months. | The draft revision of IS 16630 (Part 1) & 16630 (Part 2) has been received from the Panel and same has been circulated to the Committee members for their comments.  No comments have been received.  The Committee may **CONSIDER**. |
| b) Polyester Chips | No Indian Standards are available. | Kindly refer 3.19. | Kindly refer 3.19. |
| d) Saturated Polyester Resin | IS 12252:2017 |
| IS 13193:1992 |
| e) Nylon Chips |  | Kindly refer 3.2 (2) | Kindly refer 3.2 (2) |
| **8** | **39100090**  a) Poly Dimethyl Siloxane | No Indian Standards are available. | The committee in its last meeting noted that the draft received from Shri Dipankar Dutta is not adequate to the requirements of DCPC and after deliberation constituted the panel (PCD 12 / P-15) of preparation of draft on PDMS and provide the draft within 3 months  The Committee also requested BIS Sectt to contact the Rubber Sectional Committee and Lubricants Sectional Committee, BIS for their inputs on the subject. | The draft is still awaited from panel (PCD 12 / P-15). |
| **9** | **29319090**  Hexa Methyl di Silazane | No Indian Standards are available | In its last meeting the committee requested BIS Sectt. to send the document for printing with the approval of chairman | The standard is published as IS 17990 : 2022 Hexamethyldisilazane Specification |

The Committee may **DECIDE.**

# 3.3 IS 10910:1984 Specification for Polypropylene and its copolymers for its safe use in contact with foodstuffs, pharmaceuticals and drinking water and IS 10146:1982 Specification for Polyethylene for its safe use in contact with foodstuffs, pharmaceuticals and drinking water

The Committee in its last meeting has requested the Panel PCD 12/P-20 to review the standard and provide its recommendation whether the standard is required or not (i.e. whether to be revised or withdrawn).

The final recommendation is still awaited from the Panel.

The Committee may **DECIDE**.

# 3.4 Positive list of constituents of compostable polymers and their blends for their safe use in contact with foodstuffs, pharmaceuticals and drinking water

Dr. Smita Mohanty, the Convenor of the Panel PCD12/P-11 has informed the Committee in its last meeting that as the subject is very sensitive it would require more time to provide the draft. The Committee after detailed deliberations has requested the Panel to provide the draft within 6 months for Committee’s consideration.

The draft is still awaited from the Panel.

The Committee may **DECIDE**.

# 3.5 Proposed draft Indian Standard on Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings — Specification

The Committee in its last meeting has requested BIS Sectt to contact Dr S N Yadav, CIPET, Experts from Supreme Petrochem for their inputs on the subject. As per the decision of the Committee, experts had been contacted and inputs has been received from M/s Supreme Petrochem and they have mentioned that the draft standard is ok and there are no comments from them.

The draft is given below:



The Committee may **DECIDE**.

# 3.6 Comments on IS 15559:2004 Polyester Strapping

The Committee in last meeting requested BIS Sectt. to again contact Shri Anil Reddy, M/S Naya Strap for his inputs. No inputs were received from Shri Anil Reddy, M/S Naya Straps in spite of multiple follow ups.

The Committee may **DECIDE**.

# 3.7 Formulation of Indian Standards on Foldable polycarbonate lathi used for crowd control / Law & order duties

The Committee in last meeting had NOTED that Shri Nagraj has mentioned that the working draft is under preparation. The Committee further had requested Shri Nagaraj, SABIC to provide the working draft by 31st August 2022.

Working draft is still awaited from Shri Nagaraj, SABIC.

The Committee may **DECIDE**.

# 3.8 IS 2046:1995 Decorative thermosetting synthetic resin bonded laminated sheets specification (Second Revision)

The Committee in its last meeting had requested BIS Sectt to once again contact Dr. S K Jain, CIPET, the Convenor of the Panel PCD12/P-13 for providing the draft revision. The draft revision is still awaited from the Panel.

The Committee may **DECIDE**.

# 3.9 Issues of amendment to restrict Biodegradable materials/ compound like resin, additives, etc in Plastics used in contact with Foodstuff and Pharmaceuticals

In the last meeting Dr. Smita Mohanty, CIPET, Convenor of the Panel PCD12/P-16 had informed the Committee that the additives being new in the market requires cautious attention, hence the Panel will require more time to provide its recommendation to the Committee.

The Committee after detailed deliberations had requested the Panel to provide its recommendation within 3 months to the Committee.

The recommendations are still awaited.

TheCommittee may **DECIDE**.

**3.10 Revision of ‘IS 10142 : 1999 Polystyrene Crystal and High Impact for its Safe Use in Contact with Foodstuffs Pharmaceuticals and Drinking Water Specification’**

The Committee in its last meeting has requested the Panel PCD 12/P-4 to provide the draft revision of both the Indian Standards.

The draft revision is yet to be received.

TheCommittee may **DECIDE**.

# 3.11 Formulation of ‘Indian Standard/ Guidelines based on The European Food Safety Authority (EFSA)’ which permits the use of recycled PET in food packaging under certain set protocols

The Committee in its last meeting after modifying the task of the Panel PCD12/P-14 to “To explore the possibilities for Formulation of Indian standard/protocol for use of recycled PET in food packaging” has requested the Panel PCD12/P-14 under convenorship of Shri Dhananjay Sahoo, IOCL to provide its recommendation/working draft within 6 months.

Working draft/recommendation is still awaited from the panel PCD12/P-14.

The Committee may **NOTE**.

# 3.12 Comments on IS 14443:1997 Polycarbonate Sheets – Specification

The Committee in its last meeting requested Shri Nagraj, SABIC to provide draft revision of IS 14443 in line with ISO 11963 and comments received from Ms Nisha Bura, BIS Officer within 3 months.

The draft revision is still awaited from Shri Nagraj, SABIC.

The Committee may **NOTE**.

# 3.13 IS 2267 : 1995 Polystyrene Moulding and Extrusion Materials

# The Committee in its last meeting had NOTED that ‘ISO 24022-1 : 2020 Plastics — Polystyrene (PS) moulding and extrusion materials — Part 1: Designation system and basis for specifications and ISO 24022-2 : 2020 Plastics — Polystyrene (PS) moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties’ is available on the subject. The Committee after deliberations had requested Dr Kanak Das to provide the draft revision of the standard in line with the ISO Standards within 1 month.

# The inputs/recommendations received from Dr Kanak Das is given below:

# 

# The Committee may DECIDE.

# 3.14 IS 5210:1995 High Impact Polystyrene Sheet

# The Committee in its last meeting had NOTED that ISO standards is available on the subject. The Committee after detailed deliberations had requested Dr Kanak Das to provide the draft revision of the standard in line with the ISO Standards within 1 month.

# The inputs/recommendations received from Dr Kanak Das is given below:

# 

# 

# The Committee may DECIDE.

**3.15 IS 13601:1993 Ethylene Vinyl Acetate (EVA) Copolymers for its safe use in contact with foodstuffs, pharmaceuticals, and drinking water.**

The Committee in its last meeting requested BIS Sectt. to once again pursue M/s Exxon Mobile for their inputs on the comments received.

Inputs received from Exxon Mobile is given below.



# The Committee may DECIDE.

**3.16 IS 14421 : 1997 Plasticizer ester Specification**

The committee **NOTED** the inputs received from Shri Atin Chaudhuri on DINP and DOTP and requested Shri Atin Chaudhuri to provide the draft revision of IS 14421 by incorporating the inputs. Further vide mail Shri Atin Chaudhuri informed that IS 14421 does not cover any regulatory information for the 8 listed plasticizers and lists only their technical properties, hence unable to carry on the necessary revision.

Further, M/s Payal Polyplast has been contacted for inputs on DINP and DOTP along with any other modification. The inputs received are given below:



The Committee may **CONSIDER**.

**3.17 NWIP for the formulation of Indian Standard on Specification for Ultramarine blue for Plastics**

The Committee in its last meeting **NOTED** the inputs received from the proposer on the subject that Ultramarine blue covers 80 % of its application in Plastic Industry and its application. The Committee after detailed deliberations has requested BIS Sectt to share the draft to the Committee members for their inputs whether to take up the subject for formulation of Indian Standard or not.

The working draft has been circulated to the Committee members for the comment.

The Comments are yet to be received.

The Committee may **CONSIDER**.

**3.18 PCD 12/18988 Polyolefin Elastomer (POE) materials for moulding and extrusion — Specification.**

The committee in its last meeting NOTED the comments received on the Doc No. PCD/12/18988 and requested to BIS Sectt. to share the documents and comments received with stakeholders for their inputs on the subject. The comment has been received from Shri Sarang Phul, M/s ExxonMobil, who has mentioned that Elastomers would more fall under the scope of rubber/elastomers committees and hence this subject of standard preparation should be referred to the elastomers committee of PCD13.

The Committee may **CONSIDER**.

**3.19 PCD/12/19386 Polyalkylene Terephthalate PET and PBT their copolymers and list of constituents in raw materials and end products for their safe use in contact with foodstuffs and pharmaceuticals (First revision of IS 12252) and PCD 12 (19427) Polyalkylene terephthalate (PET and PBT) for moulding and extrusion — Specification (First revision of IS 13193)**

The committee in its last meeting has NOTED that comments were received on the documents PCD/12/19386 and PCD/12/19427 during the wide circulation period. The Committee also NOTED that that “ISO 20028-1 : 2019 Plastics — Thermoplastic polyester (TP) moulding and extrusion materials — Part 1: Designation system and basis for specification and ISO 20028-2 : 2017 Plastics — Thermoplastic polyester (TP) moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties” are available on the subject.

The Committee after detailed deliberation has requested the Panel PCD 12/P-9 under the convenorship of Shri Rajeev Dwivedi to review the comments received along with the ISO documents and provide the recommendation to the Committee for further discussion.

The final recommendation is yet to be received.

The Committee may **DECIDE**.

**3.20 Ethylene vinyl acetate (Eva) copolymers for its safe use in contact with foodstuffs, pharmaceuticals and drinking water – Specification IS 13601 : 1993.**

The Committee NOTED the comments received on IS 13601 from Shri Aditya Das, CMD 2 and decided as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl No.** | **Clause / Subclause No./ Paragraph No./Figure No./Table No.** | **Proposed Change/Modified Wordings** | **Comments/Suggestions along with Justification for the Proposed Change** | **Committee’s Decision** |
| **1.** | 4.1.2 | Method of determination of total level of slip agent and/or anti block agent added to the polymer may be specified | Currently there is no method defined to determine conformity to the requirement through testing | The level of slip agent and/or anti block agent to be declared by manufacturer. |
| **2.** | 4.5.3 | The specific hygienic practices to be complied to may be specified in the form of a checklist | Currently there is no specific way to determine compliance to the requirement of hygienic conditions | Reference of IS 2491 may be included in the standard. The Committee further requested BIS Sectt to examine the relevant standard for its applicability. |
| **3.** | 5.2.2 | Marking of Symbol as per EEC directive 80/590/EEC marking requirement may be reviewed since no such directive could be found | This appears to be an EU requirement for which no current reference to any document could be found, It may also be reviewed whether marking based on an EU directive is required in an Indian Standard. | The Committee requested BIS Sectt to look for the EEC directive 80/590/EEC and provide the inputs to the Committee. |

**BIS Sectt Observation:**

1. IS 2491 : 2013 Food hygiene - General principles - Code of practice (*third revision*) is available and covers essential principles of food hygiene applicable throughout the food chain (including primary production through to the final consumer) to achieve the goal of ensuring that food is safe and suitable for human consumption.
2. Directive 80/590/EEC had been repealed.

The Committee may **DECIDE**.

**3.21** **Specification Standard for Polypropylene Strapping IS 13960.**

The Committee **NOTED** the inputs received from M/s Vijay Copolymers. After detailed deliberations, the Committee has requested BIS Sectt to prepare the P draft incorporating the inputs received and circulate the document to the Committee members as a P-Draft for a period of 1 month.

The draft is yet to be prepared and circulated.

The Committee may **NOTE**.

**3.22 Revision of IS 14535 : 1998 Recycled Plastics for the manufacturing of products — Designation**

The Committee NOTED that the IS 14535 is very old standard and needs to be reviewed for its applicability. After deliberations, the Committee requested the Panel PCD 12/P-3 to review the standard and provide their recommendations to the Committee.

The inputs are yet to be received.

The Committee may **NOTE**.

**Item 4 DRAFTS STANDARDS/AMENDMENTS FOR FINALIZATION**

**4.1 PCD/12/20155** G**uar gum — Specification (Revision of IS 3988)**

As per the decision of the Committee in its last meeting, the draft revision of IS 3988 was issued into wide circulation on 21st July 2022 for a period of 2 months vide Doc. No. PCD/12/20155 with last date of comments as 19th September 2022.

No comments were received.

The committee may **FINALIZE** the document.

**4.2 PCD/12/20691 Ionomer resins for its safe use in contact with foodstuffs, pharmaceuticals and drinking water — Specification (Revision of IS 11434)**

As per the decision of the Committee in its last meeting, the draft revision of IS 3988 was issued into wide circulation on 7th October 2022 for a period of 2 months vide Doc. No. PCD/12/20691 with last date of comments as 6th December 2022.

No comments were received.

The committee may **FINALIZE** the document.

**4.3 PCD/12/20692 Ethylene acrylic acid (EAA) copolymers for their safe use in contact with foodstuffs, pharmaceuticals and drinking water — Specification (Revision of IS 11704)**

As per the decision of the Committee in its last meeting, the draft revision of IS 3988 was issued into wide circulation on 7th October 2022 for a period of 2 months vide Doc. No. PCD/12/20692 with last date of comments as 6th December 2022.

No comments were received.

The committee may **FINALIZE** the document.

**4.4 PCD/12/20156 Nylon monofilaments — Specification (Revision of IS 1843)**

As per the decision of the Committee in its last meeting, the draft revision of IS 3988 was issued into wide circulation on 21st July 2022 for a period of 2 months vide Doc. No. PCD/12/20156 with last date of comments as 19th September 2022.

No comments were received.

The committee may **FINALIZE** the document.

**4.5 PCD/12/20178 Rigid PVC sheets — Specification (Revision of IS 6307)**

As per the decision of the Committee in its last meeting, the draft revision of IS 3988 was issued into wide circulation on 25th July 2022 for a period of 2 months vide Doc. No. PCD/12/20178 with last date of comments as 23rd September 2022.

No comments were received.

The committee may **FINALIZE** the document.

**4.6 PCD/12/20179 Shoe adhesive, natural rubber latex base — Specification (Revision of IS 9827)**

As per the decision of the Committee in its last meeting, the draft revision of IS 3988 was issued into wide circulation on 7th October 2022 for a period of 2 months vide Doc. No. PCD/12/20179 with last date of comments as 6th December 2022.

No comments were received.

The committee may **FINALIZE** the document.

**4.7 PCD/12/18317 CAPROLACTAM — SPECIFICATION (Revision of IS 12210)**

The Committee in its last meeting **NOTED** the comments received from Shri P D Kotak to not consider the amendment to substitute “Transmittance” for “Absorbance”. The Committee further requested BIS Sectt to look for the old files, if possible, to get the detailed reason for the amendment.

As the Amendment 1 was issued into Feb 1995, old files are not available. Further Shri P D Kotak has been contacted for clarification. The received clarification is given below:

“a) In spectrophotometric method (Ref. ii) b) - ANNEX K), the Absorbance value which reflects level of impurities in Caprolactam is obtained up to four digits from decimal (e.g. 0.0083). Due to low impurities level in Caprolactam, very low Absorbance value is reported in analysis. Now, using same method, if this low level of impurities is measured through Transmittance then the value obtained will be only one digit after decimal (e.g. 98.1) which does not precisely quantify their level. Thus, in order to get the precise quantity of impurities in Caprolactam, “Absorbance” is required to be adopted in place of “Transmittance”.

b)    Major Caprolactam manufacturers, world over, for above reason have adopted Absorbance or Extinction or Optical density (all represent Absorbance) in their technical specifications of "Caprolactam" as per attachments sourced from public domain.”

Further, in last meeting, the Committee had agreed on the following changes:

To give reference of Indian Standard for Pipette (see IS 1117), Nessler cylinder (see IS 4161), Sulphuric acid (see IS 266), Ammonia (see IS799), HCl (see IS 265) and Sodium acetate (see IS577).

The Committee may **DECIDE**.

**4.8 PCD/12/19402 POLYCARBONATE MOULDING AND EXTRUSION MATERIALS SPECIFICATION (Revision of IS 14434)**

In its last meeting, the Committee had NOTED the comments received on wide circulation document and has requested Shri Nagraj, M/s SABIC to provide the draft revision after considering the comments. Further the Committee has also requested BIS Sectt to reissue the draft into wide circulation for a period of 1 month, eliciting comments.

As per the decision of the Committee, the draft revision was issued into wide circulation on 01 September 2022 with last date of comments as 01 October 2022.

No comments have been received.

The Committee may **DECIDE**.

**4.9 PCD/12/19874 Plastics— film and sheeting — Biaxially oriented polypropylene (PP) films (Revision of IS 16460/ ISO 17555)**

As per the decision of the Committee in its previous meeting, the National Foreword was issued into wide circulation on 16 June 2022, eliciting comments for a period of 60 days with last date of comments as 15 August 2022.

No comments were received.

The Committee may **FINALIZE** the document.

# 4.10 PCD/12/20389 Amendment No. 2 to IS 16738:2018 Positive List of Constituents for Polypropylene, Polyethylene and their Copolymers for its Safe Use in Contact with Foodstuffs and Pharmaceuticals.

As per the decision of the Committee in its last meeting, the amendment was issued into wide circulation on 29 August 2022 vide document No. PCD/12/20389 for period of 60 days with last date of comments as 28 October 2022.

# The comments received on the documents are given below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No.  (1) | Clause/Sub-clause/ para/table/fig. No. commented  (2) | Commentator/  Organization/  Abbreviation  (3) | Type of Comments  (General/Editorial/ Technical)  (4) | Justification  (5) | Proposed change  (6) |
| 186 | Page 8, tabl 1, SI 184 – Insert the following after SL No. 184 | Polymer Protective Aid’s (PPA’S) | Technical | As per EU 10/2011 page 102 | It should be “Polymer Processing Aid’s (PPA’S) |

# The supporting document is given below:

# 

# The Committee may DECIDE.

**4.11 PCD/12/20504 Plastics guidelines for the recovery and recycling of plastics waste (Revision of IS 14534)**

After the receipt of the draft revision, with the approval of Chairman, PCD 12, the draft revision was issued into wide circulation on 12 September 2022 vide document number PCD/12/20504 with last date of comments as 11 November 2022.

The comments received on the draft revision is given below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No.  (1) | Clause/Sub-clause/ para/table/fig. No. commented  (2) | Commentator/  Organization/  Abbreviation  (3) | Type of Comments  (General/Editorial/ Technical)  (4) | Justification  (5) | Proposed change  (6) |
| 1. 1. | Foreword, para 5 | Shri T. K. Bandopadhyay | Editorial | Paragraph should be removed as any Draft Regulation of Government should not become a part of the Standard | Paragraph number 5 of Foreword should be removed. |
|  | Annexure B, Energy Recovery | -do- | Editorial | Energy Recovery Flow Chart should include "Coprocessing in Cement Kiln" also as an option | Include Coprocessing in cement kiln as one of the options of Energy Recovery |
|  | Foreword, para 4 | -do- | Editorial | The paragraph should explain the reason for removing the specific lines in clause 7.2.2 of existing Standard under revision, on use of recycled plastics in contact with food etc products | (1). In the Foreword, paragraph number 4 should be modified as under  IS 14534 2016 (First Revision), Clause 7.2.2 prohibits use of recycled plastics in contact with food products, pharmaceuticals and drinking water based on prevailing Government Regulations.  Government of India, Plastic Waste Management (Second Amendment) Rules, 2021, G.S.R. 247 (E), clause 2 (b), removed the restriction with ammended rule, given in attachment. |
|  | Foreword, para 5 | Shri Mihir Banerji | Editorial | There is no need to include this paragraph and to be deleted it. The said FSSAI notification on rPET is still in the **draft stage**. **Paragraph 4** explains MOEF & CC September 17, 2021 notification stating the view for using recycled plastics in food packaging. | In line with MOEFF & CC notification on February 16, 2022, FSSAI guidelines on the use of recycled plastics in food packaging may appear from time to time. It is suggested to consult those notifications before considering using recycled plastics in food packaging applications. |
|  | 5.2.3.1 | Smt. Priti Chodankar, Uniliver | Editorial | Currently the standard only allows pyrolysis for chemical recycling (depolymerization of plastics). However, this should be revised to allow pyrolysis or equivalent process available, since there are other methods also available. | Make changes as below:  “Using various processes, well-known within the petrochemical industry, plastics can be depolymerized by pyrolysis process and equivalent processes and fed back into the cracking process to form into their basic monomeric chemical constituents or into hydrocarbon fractions.” |
|  | Section 7.2.2 | -do- | Editorial | The proposed revision currently only allows marking of recycled plastic used in the product as an alphanumeric symbol e.g. R25. As per IS 14534:1998: both symbol or text can be used. Many consumer goods actively declare percentage of recycled plastic used in their product pack as a statement e.g. Made with 70% recycled plastic | In addition to the symbol indicated at 7.2.1, the product made from recycled/ reprocessed plastics/ regranulated plastics should be marked with appropriate symbol or marking of percentage of recycled material used **either with a symbol or a statement** based on certification of recycled content as per procedure given in this document (Example: The product containing 25 percent shall be marked with R25). |
|  | Section 7.2.2. | -do- | Editorial | There is audit and Certification requirement for manufacturing facilities for traceability. However, the current draft does not specify who will be responsible for the audit and certification. Will this be brought under BIS ? | Need clarity on  “Audit and certification of manufacturing facilities shall be required for traceability or use of specified percent of recycled content in the production of plastic products to claim their recycled content and use the above Codification.” |
|  | 7.5 Note | -do- | Editorial | Need clarity on applicable regulatory directive and national standards that will be applicable to cosmetic products. Currently this is not specified here. | Need clarity on the highlighted text as mentioned below  ‘Note: Product Applications as Food Contact Material, Pharmaceutical, Cosmetics shall be governed by prevailing regulatory directives and applicable national standards.’ |
|  | Annex A, A-84 | -do- | Editorial | Need clarity if this definition of ‘recycled plastics’ include pre as well as post- consumer use plastic. | Current definition does not clearly separate Pre / Post consumer use plastics, but only mentions this: Plastic prepared by processing in a production process from plastics waste materials for the original purpose or for other purposes but excluding energy recovery |

The comments received from M/s Exxon Mobil is given below:



The Committee may **DECIDE.**

**Item 5 DRAFT STANDARD / AMENDMENT FOR APPROVAL FOR WIDE CIRCULATION**

**5.1 IS 11435: 1985 Positive list of constituents of ionomer resins for its safe use in contact with foodstuffs, pharmaceuticals and drinking water**

The Committee **NOTED** the inputs received from M/s DOW. The members have suggested that to incorporate any substance in the substance must be backed up by the document. Therefore, after detailed deliberations, the Committee has requested BIS Sectt to contact M/s DOW for back up document for the recommendations provided by them. The received documents will be discussed in the next meeting.

Inputs are yet to be received from M/s DOW.

The Committee may **CONSIDER**.

**5.2 IS 11705: 1986 Positive list of constituents of ethylene/acrylic acid (EAA) copolymers for their safe use in contact with foodstuffs, pharmaceuticals and drinking water**

The Committee **NOTED** the inputs received from M/s DOW. The members have suggested that to incorporate any substance in the substance must be backed up by the document. Therefore, after detailed deliberations, the Committee has requested BIS Sectt to contact M/s DOW for back up document for the recommendations provided by them. The received documents will be discussed in the next meeting.

Inputs are yet to be received from M/s DOW.

The Committee may **CONSIDER**.

**5.3 IS 3434: 1984 Glossary of terms for adhesives and pressure sensitive adhesive tapes (*first revision*)**

The adhesive subcommittee in its meeting recommended BIS Sectt. to put up the draft revision received in PCD 12 meeting for approval for WC, since no comments were received from the Adhesive Subcommittee members.

The draft revision received is given below.



The committee may **DECIDE**.

**5.4 Formulation of Indian Standard on Aluminium Foil Tapes Application In HVAC Industry And White Goods**

The adhesive subcommittee in its meeting recommended BIS Sectt. to put up the draft revision received in PCD 12 meeting for approval for WC, since no comments were received from the Adhesive Subcommittee members.

The draft received is given below.



The committee may **DECIDE**.

**5.5 Comments of FSSAI on IS 12247 Nylon-6 polymer for its safe use in contact with foodstuffs pharmaceuticals and drinking water**

# The Committee in its last meeting after receiving the inputs from Shri Atin Chaudhuri has decided to issue the draft revision into wide circulation after incorporating the following:

# Insert clause 3.3 “Talc (Mg3H2(SiO3)4) (CAS 14807-96-6), with migration limit of 60 mg/kg of food”

# Insert new clause 3.5 “Wax — 1. N,N'- Ethylene(stearamide) (CAS: 110-30-5), N,N'-Ethane-112- diylbishexadecan-1-amide (CAS: 5518-18-3), each chemicals having migration limit of 60 mg/kg of food.”

# BIS Sectt Observation: In IS 12247, the limit for overall migration is 60 mg/l, whereas as per the inputs of Shri Atin Chaudhuri, each chemical has limit of 60 mg/kg of food.

# The Committee may DECIDE.

**Item 6** **COMMENTS ON PUBLISHED STANDARDS**

**6.1 Comments on IS 16738 : 2018 Positive List of Constituents for Polypropylene, Polyethylene and their Copolymers for its Safe Use in Contact with Foodstuffs and Pharmaceuticals**

The Comments have been received from M/s Exxon Mobil and M/s RIL on IS 16738. The comments received from RIL is given below:

1. “Page 3, Table 1, Auxiliary Items (Clause 5.1), SL No 30, 31 & 32 having same CAS number with different maximum level of use.- Need to review and correct
2. Page 8, Annex A, IS-10141-2001 is already withdrawn – Need to remove from the list.
3. Page 8, Annex A, IS-10151-1982 – to be replaced with IS-10151-2019.
4. Page 9, Annex A, IS-12229-1987 is already withdrawn- Need to remove from the list
5. Page 9, Annex A, IS-12252-1987 – to be replaced with IS-12251-2017”

The Comments received from Exxon Mobil is given below:



The comments received from M/s PTT Global Chemical Public Company Limited, Thailand, is given below:



The Committee may **CONSIDER**.

**6.2 Comments on IS 7328 : 2020 Specification for polyethylene material for moulding and extrusion**

**6.2.1** The Comments received on IS 7328 is given below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No.  (1) | Clause/Sub-clause/ para/table/fig. No. commented  (2) | Commentator/  Organization/  Abbreviation  (3) | Type of Comments  (General/Editorial/ Technical)  (4) | Justification  (5) | Proposed change  (6) |
|  | 4.3, Page 5 | HPCL | Editorial | Correct designation should be IS 7328-2B-FBH-BDE-CB05. Mentioned IS 7328-2B-FBH-BDE-C05 is wrong | Correct designation should be IS 7328-2B-FBH-BDE-CB05. |
|  | 4.2.5.1.1, 3 | -do- | Technical | The designation method for annealed materials density is mentioned; however, annealing-related details such as methods of annealing, time, and temperature etc of annealing are not mentioned. This will help in bringing about better clarity and precise designation. | Mentioning annealing-related details such as methods of annealing, time, and temperature etc of annealing |

**6.2.2** Further, a query also has been received from Shri Sandeep K Soni, M/s KPL International Ltd. The received query is given below:

“We, KPL International Ltd., represent Ineos Olefins & Polymers Europe in the Indian Subcontinent for polyolefins including polyethylene and polypropylene. Among various products that we deal in, there is a family of acid copolymers, which are copolymers of Ethylene and MethAcrylic-Acid with various percentages of MethAcrylic-Acid ranging from 1.2% to 18.5%.

As per our understanding, grades with MAA content higher than 3% would NOT form a part of the above standards. However, if you could help us with a better understanding of the same.”

**6.2.3** Comments have been received on the labelling provisions of IS 7328 to use QR code. The Comments received are given below:

****

The Committee may **CONSIDER**.

**6.3 Comments on IS 17077 (Part 1) : 2022 Plastics — Acrylonitrile- Butadienestyrene (ABS) Moulding and Extrusion Materials Part 1 Designation System and Specifications**

The Comments on IS 17077 (Part 1) received from Shri Surender Kumar, BIS is given below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sl. No.  (1) | Clause/Sub-clause/ para/table/fig. No. commented  (2) | Commentator/  Organization/  Abbreviation  (3) | Type of Comments  (General/Editorial/ Technical)  (4) | Justification  (5) | Proposed change  (6) |
|  | 5.2, Page 8 |  | Editorial | under Data Block 4 and against Position 3, for F it is mentioned as Antistatic which is not in line with the description in cl.5.2 and Designation of material read with Table 4 | Antistatic may be replaced with the words Special Burning Characteristics |

The Committee may **CONSIDER**.

6.4 Comments on IS 17397 (Part 1) : 2022

Comments have been received from Ms Nagamani. T, Scientist E, BIS on IS 17397 (Part 1). The comments are given below:

“i) In the ISO standard, the requirements of shore hardness and elasticity modulus are given as the basis for designation of the various varieties of polyurethanes (TPU) only and the actual quality requirements include MFI, viscosity, specific gravity, abrasion resistance, extrusion rating, etc.

ii) The values of Shore Hardness A, mentioned in Table 3 of the standard is very wide, such that everything gets covered in the higher range and so is not a correct representation.

iii) Based on end applications, few more quality requirements are required be measured and reported.”

The Committee may **CONSIDER**.

**Item 7 NEW SUBJECTS**

**7.1 ISO 5412:2022 Plastics — Industrial compostable plastic shopping bags and ISO 5424:2022 Plastics — Industrial compostable plastic drinking straws**

A proposal for adoption of both the ISO Standards under dual numbering was circulated to the Committee members for their comments vide mail dated 2 November 2022. The few comments have been received from the members emphasizing on the suitability for food contact application.

The Committee may **CONSIDER**.

**7.2 ISO 23517 : 2021 Plastics — Soil biodegradable materials for mulch films for use in agriculture and horticulture — Requirements and test methods regarding biodegradation, ecotoxicity and control of constituents**

ISO Standard on Soil biodegradable materials for mulch films for use in agriculture and horticulture was published by ISO in 2021. As the major focus with today’s perspective is on sustainability, the Committee may adopt the standard under dual numbering.

The Committee may **CONSIDER**.

**7.3 ISO/FDIS 5677 Testing and characterization of mechanically recycled polypropylene (PP) and polyethylene (PE) for intended use in different plastics processing techniques**

BIS has proposed a new subject for the formulation of standard at ISO in 2019. The subject was approved and is currently at FDIS stage. The leader for this project is Shri Rajeev Kumar Dwivedi, TTRC Lohia corp. As the standard is already finalized, the Committee may adopt the standard under dual numbering.

The Committee may **DECIDE**.

**Item 8 PROGRAMME OF WORK**

**8.1** The committee **NOTED** item 8.1 of the agenda about the present state of activities in form of published standards and standards under development stages under PCD 12 (Program of work).

**8.2** **Review/ Reaffirmation of Pre-2016 Standards**

As per BIS Rules, all published Indian Standards have to be reviewed periodically once in five years to determine the need for revision/reaffirmation/withdrawal. Accordingly, 9 Indian Standards formulated by PCD 12 published/reaffirmed during or before 2018 has become due for review.

The present directives indicate that the standards fall under the above category shall be reviewed thoroughly and while reviewing following points should be considered:

i)          Does the standard meet the present demand of the industry and the consumers?

ii)         Is it compatible with the available international standards?

iii)        Whether these standards are required to be continued or not?

iv)        Prospective implementation of the standard.

|  |  |  |
| --- | --- | --- |
| Sl No. | IS No. and Title | Remarks |
|  | IS 10889 : 2004 High density polyethylene films (*first revision*) | Kindly refer 3.1 (4) |
|  | IS 11988 : 1986 Specification for hot seal patches | Kindly refer 3.1 (23) |
|  | IS 12087 : 1987 Specification for suitcase for air and submarine crew |  |
|  | IS 14611 : 2016 Multilayered cross laminated sheets/tarpaulins/covers/agricultural films - Specification (*first revision*) | Kindly refer 3.1 (3) |
|  | IS 14995 : 2001 Stretch cling films - Specification | Kindly refer 3.1 (2) |
|  | IS 2508 : 2016 Polyethylene films and sheets - Specification (*third revision*) | Kindly refer 3.1 (1) |
|  | IS 16630 (Part 1) : 2018 Plastics - Post - Consumer poly (Ethylene Terephthalate) (PET) bottle recyclates: Part 1 designation system and basis for specifications | Kindly refer 3.2 (7) |
|  | IS 16630 (Part 2) : 2017 Plastics - Post - Consumer poly(Ethylene Terephthalate) (PET) bottle recyclates: Part 2 preparation of test specimens and determination of properties | Kindly refer 3.2 (7) |
|  | IS 16738 : 2018 Positive list of constituents for polypropylene, polyethylene and their copolymers for its safe use in contact with foodstuffs and pharmaceuticals | - |

**Item 9 ITERNATIONAL ACTIVITIES**

**9.1 Meetings of Committee and Subcommittees of ISO/TC 61 in 2022**

The meetings of Committee and different subcommittees of ISO/TC 61 was held from 06-28 September 20222. The meeting was attended by the experts given below:

|  |  |  |
| --- | --- | --- |
| **Sl No.** | **Name** | **Organization** |
| 1 | Dr. S.N. Yadav | CIPET |
| 2 | Dr. S.K. Jain | CIPET |
| 3 | Dr. Smita Mohanty | CIPET |
| 4 | Dr. K. Prakalathan | CIPET |
| 5 | Dr. K. P. Bhuvana | CIPET |
| 6 | Shri Alakesh Ghosh | HMEL |
| 7 | Shri Vineet Kumar Gupta | HMEL |
| 8 | Shri Tushar K Bandopadhyay | ICPE |
| 9 | Shri Mihir Banerji | IPI |
| 10 | Shri Ajay Karmarkar | KONSPEC |
| 11 | Shri Amit Jaykumar Shah | RIL |
| 12 | Dr. Sunil J Mahajan | RIL |
| 13 | Shri Rajeev Kumar Dwivedi | TTRC Lohia Corp |
| 14 | Shri Sunil Rauto | SABIC |
| 15 | Shri Nagaraj Dhadesugur | SABIC |
| 16 | Shri Jeevaraj G. Pillai | UFLEX |
| 17 | Shri Raja Poddar | IOCL |
| 18 | Shri Shivam Dwivedi | BIS |

Dr S N Yadav, CIPET was the leader of the delegation from India. It has been requested from the participants to submit the report of the meeting (by 10 October 2022) based on the points given below:

a)      Contribution of Indian delegation and usefulness of the meeting.

b)     Any issues which need to be taken up subsequently.

c)      Any action points.

The report is only received from Shri Rajeev Dwivedi, TTRC.

The Committee may **CONSIDER**.

**9.2 Comments on IS/ISO 17088 : 2021 from Dr. A. Radhakrishna, Biotech Bags**

Comments have been received from Dr. A. Radhakrishna on IS/ISO 17088 to forward it to ISO for discussion. The received comment is given below:



The Committee may **CONSIDER**.

**Item 10 ANY OTHER BUSINESS**

**Item 11 DATE AND PLACE FOR NEXT MEETING**