



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

(PETROLEUM, COAL & RELATED PRODUCTS DEPTT.)

MINUTES

Methods of Sampling and Test for Plastics Sectional
Committee, PCD 27

10th Meeting

DATE & TIME

03 June 2024, 1030 h

VENUE

Hybrid Meeting (CIPET Kochi)

CHAIRMAN

Prof (Dr) Shishir Sinha, Director-General, CIPET

MEMBER SECRETARY

Shivam Dwivedi, Scientist C/DD

Item 0 WELCOME AND OPENING REMARKS

0.1 Welcome Address by Bureau of Indian Standards

Smt. Meenal Passi (HPCD) welcomed the Chairperson and all the members to the 10th meeting of Methods of Sampling and Test for Plastics Sectional Committee, PCD 27. She briefed the members about the agenda items to be discussed in the meeting. She also appreciated the work done by the Committee members under the leadership of Prof Shishir Sinha at the national and international level. She also requested the members to continue their good work in the field of Standardization.

0.2 Opening Remarks by the Chairperson

Dr. Shishir Sinha, Director-General, CIPET welcomes all the members to the 10th meeting of the Committee. He restated the importance of the work done under this Committee for the protection of the environment and other aspects. He further requested all the members to actively participate in the meeting so that all the agenda items can be discussed in a timely manner.

Item 1 CONFIRMATION OF MINUTES OF THE LAST MEETING

The Committee **NOTED** item 1 of the agenda that no comments have been received on the minutes of the 9th meeting and hence **CONFIRMED** the minutes as circulated.

Item 2 SCOPE AND COMPOSITION OF COMMITTEE

2.1 The committee **NOTED** item 2.1, 2.2 and 2.3 of the agenda about the scope and composition of the Methods of Sampling and Test for Plastics Sectional Committee, PCD 27. The Committee after detailed deliberation decided the following:

- a) **To withdraw:** M/s DMSRDE, FSSAI, Dr. A. B. Mathur, Dr. Subhash Chandra, Dr. Vijay Kumar, Dr. K Palniveelue.

- b) The Committee members were of the opinion that the experts given below are active in the field of plastics, hence requested BIS Sectt to seek the consent of the experts for membership in the Committee:

Shri Shantanu Chattopadhyay (IIT Kharagpur)

Dr Bhawani, IIT Delhi

Dr Rajeev Kumar Gupta, IIT Kanpur

Shri Anil Prakash Joshi, Environmentalist

2.4 Request for Representation in Methods of Sampling and test for plastics Sectional Committee, PCD 27

2.4.1 MIPA Industries, Pune

The Committee considered the request from MIPA industries. The members informed that MIPA industries are involved in the manufacturing of Geomembrane pond liner, HDPE pipes, etc. The Committee after deliberations felt that their expertise would be better utilized in the Civil engineering department of BIS, hence decided not to co-opt the organization in the Committee.

2.4.2 Jubilant Agri and Consumer Products Limited

The Committee considered the request from Jubilant Agri and Consumer Products Limited and after deliberations felt that their expertise would be better utilized in the Adhesive Subcommittee under PCD 12, hence decided not to co-opt the organization and requested the organization to request for the membership in Adhesive Subcommittee, PCD 12:9.

Item 3 ISSUES ARISING OUT OF PREVIOUS MEETINGS

3.1 Review/ Reaffirmation/Revision of Standards

Sl No.	IS No.	Decision of the Committee
i)	IS 13360 (Part 10/ Sec 4) : 2001 Plastics — Methods of testing: Part 10 Thermosetting properties Section 4 Determination of gel time and peak exothermic temperature of reacting thermosetting resins	The Committee requested BIS Sectt to issue the documents into WC for period of 2 months by updating the cross-referred standards and incorporating amendments, if any. The Committee also requested BIS Sectt to share the WC draft with Prof Shantanu, IIT Kharagpur for his input as well.
ii)	IS 1998: 1962 Methods of test for thermosetting synthetic resin bonded laminated sheets	The Committee NOTED that Plastics Sectional Committee, PCD 12 has aligned IS 2046 with ISO 4586 (Part 1 to Part 8) and part 2 of ISO 4586 covers the test methods for thermosetting synthetic resin bonded laminated sheets and after deliberations decided to recommend for withdrawal of the Standard. The Committee also noted that IS 2046 (Part 2) will supersede IS 1998.
iii)	IS 7188: 1974 Methods of test for cellulose acetate flakes	The Committee noted that no inputs were received from Dr Vijay Kumar. After deliberations, the Committee requested Dr Smita, CIPET to review the standards and provide her inputs for its revision
iv)	IS 7437: 1974 Methods of sampling and test for vegetable adhesives	

v)	IS 8543 (Part 1/Sec 1):1978 Methods of testing plastics: Part 1 characterization of polymer structure and size section 1 determination of molecular mass from viscosity	within 3 months. She agreed to the request of the Committee.
vi)	IS 8543 (Part 13/Sec 1):1977 Methods of testing plastics: Part 13 tests for specific products section 1 buttons (Thermosetting)	The Committee reviewed the standard after deliberations felt that there are no major user of the standard. Hence, decided to archive the standard.

3.2 Adoption of ISO standards as Indian Standard

The Committee NOTED the item 3.2 of the agenda about the adoption of ISO Standards. The decision of the Committee is given below.



3.3 Formulation of Indian Standard on ‘Determination of the toxicity Index of the products of combustion from small specimens of materials’

The Committee noted that working draft is still awaited from the Panel (PCD 27/P-4). The Committee after deliberations decided to reconstitute the Panel as given below:

With a task to provide the working draft on Determination of the toxicity Index of the products of combustion from small specimens of materials.

Composition:

1. Dr Vishal Verma, CIPET (Convenor)
2. Shri Prasad Shankarappa, Underwriter Laboratories
3. Dr V P Sharma, CSIR-IITR
4. Expert from RDSO

The Committee requested the Panel to provide the working draft within 3 months.

3.4 Revision of IS 9845 Determination of overall migration of constituents of plastics materials and articles intended to come in contact with foodstuffs – Method of analysis (second revision)

Shri Atin Chaudhuri, Convenor of the Panel (PCD 27/P-2) informed the Committee that the Panel is currently working on the draft revision and requires more time to complete the work. The Committee agreed to the request and requested the Convenor to submit the draft revision by 31 August 2024 for Committee’s consideration.

3.5 NWIP for formulation of Indian Standards on Nano particle-based packaging materials meant for food packaging and cooking Utensils (non-stick, coated with polymers) and cutleries

Dr Arun P Selvam, the Convenor of the Panel (PCD 27/P-5) requested the Committee to modify the scope of work into 2 parts and to first work on ‘**Nano particle-based packaging materials meant for food packaging**’. The Committee agreed to the suggestion and modified the task of the Panel to provide the working draft on Nano particle-based packaging materials meant for food packaging.

The Committee also requested the Convenor to finalize the Panel composition within 1 month and submit the working draft within 4 months for Committee’s consideration.

3.6 Formulation of Indian Standard for Specific migration

Dr R S Matche, the Convenor of the Panel (PCD 27/P-3) informed the Committee that the work is yet to be initiated. The Committee requested the Panel to start working on the subject and submit the working draft within 4 months.

Item 4 DRAFTS STANDARDS/AMENDMENTS FOR FINALIZATION

4.1 The Committee considered the item 4.1 of the agenda about the documents issued into wide circulation. The Committee noted that no comments were received during the wide circulation period, hence decided to finalize the documents. The Committee requested BIS Sectt to send the documents for printing.



4.2 The Committee considered the item 4.2 of the agenda about the documents which was issued into wide circulation on 02 May 2024 has yet to complete their wide circulation period. The Committee after deliberations decided as follows:

- a) If no comments are received during WC period, the documents to be treated as finalized and to be sent for printing with the approval of Chairperson.
- b) If comments are received during WC period, the comments received will be discussed in the next meeting.



Item 5 DRAFTS STANDARDS/AMENDMENTS FOR WIDE CIRCULATION

The Committee noted that no comments were received from the members on the draft revisions circulated to the Committee members. The Committee after deliberations requested BIS Sectt to issue the draft revisions given below into WC for a period of 2 months.

SI No.	IS No. & Title	Modified title of the Standards
i.	IS 867 : 1963 Methods of test for phenolic moulding materials	Methods of test — Phenolic moulding materials
ii.	IS 2221: 1962 Methods of test for aminoplastic moulding materials	Methods of test — Aminoplastic moulding materials

iii.	IS 4669: 1968 Methods of test for polyvinyl chloride resins	Methods of test — Polyvinyl chloride resins
iv.	IS 2530: 1963 Methods of test for polyethylene moulding materials and polyethylene compounds	Methods of test — Polyethylene moulding materials and polyethylene compounds

Item 6 NWIP FOR FORMULATION OF INDIAN STANDARDS

6.1 Formulation of Indian Standard for analysis of Xylene soluble in Polypropylene (PP) through NMR

The Committee noted and considered the proposal received from Dr Gopal Dayal, GAIL to formulate Indian Standards for ‘Analysis of Xylene soluble in Polypropylene (PP) through NMR’.

Dr Dayal informed the Committee that method proposed is currently in use in refineries as it reduced the testing time with respect to conventional methods which take 4-5 hours and xylene is also carcinogenic in nature.

The Committee members after deliberation opined that the test methods need to be validated before considering the subject for formulation of standard. Therefore, the Committee after deliberations requested Dr Dayal to do Inter-lab Comparison (ILC) to validate the method. The Committee requested Dr Dayal to coordinate the work. For initiating the work, the Committee decided to constitute a Panel (PCD 27/P-6) as given below:

- a. Dr Gopal Dayal, GAIL (Convenor)
- b. Shri Raja Poddar, IOCL, Panipat
- c. Shri Vineet K Gupta, HMEL, Noida
- d. Dr Saptarshi Ray, BPCL, Noida
- e. Shri Vivek Mehta, OPaL
- f. Shri Amit Shah, RIL

The Committee requested Dr Dayal to invite the refineries for ILC. The Committee also requested Dr Dayal to do the comparison study as well with respect to conventional method as well.

6.2 NWIP to formulate guideline standard on Estimation of rPET content in PET products

The Committee NOTED and Considered the proposal received from PPRDC. Shri Mihir Banerjee informed the Committee that currently no test methods are available to determine the recycled content of PET in PET product.

The Committee members agreed to the points of Shri Banerjee but informed the Committee that currently chain of custody and audit methods are in use for recycled content determination in product which was a robust and well established method for meeting EPR obligations.

The Committee after detailed deliberations decided as follows:

- a) Constituted a Panel (PCD 27/P-7) as given below with a task to study the report submitted by PPRDC and suggest a roadmap ahead within 2 months.

Panel (PCD 27/P-7) Composition:

- i) Shri Rajeev Kumar Dwivedi, TTRC (*Convenor*)
 - ii) Shri Atin Chaudhuri, IFCA
 - iii) Shri Tushar K Bandopadhyaya, ICPE
 - iv) Dr Shreeram Wadekar, RIL
 - v) Expert from CIPET
 - vi) Member Secretary, BIS
- b) The Committee requested the Panel to consider all the different test procedures mentioned in the study report and consider the aspects for repeatability and reproducibility of the test methods as well.
- c) The Committee also requested the Panel to suggest labs which can participate in Inter-lab comparison, sample preparation, onsite/offsite/blinded samples, if Panel feels that based on study report submitted by PPRDC, formulation of Indian Standard can be taken up.
- d) The Committee also decided that PPRDC will co-ordinate for Inter lab comparison if the Panel suggests for it.
- e) The Committee noted that CIPET was only involved in testing of the material and was not directly involved in the preparation of the study report. Therefore, the Committee after detailed deliberation requested PPRDC to drop the ‘In association with School for Advanced research in Petrochemicals (SARP)-LARPM, CIPET, Bhubaneshwar’ from the agenda.

The copy of the study report (proposal from PPRDC) is given below:



Guidelines for estimation of mecha

Item 7 PROGRAMME OF WORK

7.1 The Committee **NOTED** item 7.1 of the agenda about the Programme of the work of the Committee.

7.2 Review/ Reaffirmation of Pre-2019 Standards

The Committee **NOTED** the item 7.2 of the agenda and decided to **REAFFIRM** the Indian Standards as given below.

SI No.	IS No./Title
i.	IS 13360 (Part 2/Sec 3) : 2019 / ISO 294-1 : 2017 Plastics — Methods of testing : Part 2 Sampling and preparation of test specimens, Section 3 Injection moulding of test specimens of thermoplastic materials — General principles and moulding of multipurpose and bar test specimens (<i>first revision</i>)
ii.	IS 13360 (Part 6/Sec 6) : 2019 / ISO 4589-1 : 2017 Plastics — Methods of testing, Part 6 Thermal properties, Section 6 Flammability by oxygen index — General requirements (<i>second revision</i>)

iii.	IS 13360 (Part 6/Sec 19) : 2019 / ISO 4589-2 : 2017 Plastics — Methods of testing : Part 6 Thermal properties, Section 19 Flammability by oxygen index — Ambient temperature test <i>(first revision)</i>
iv.	IS 13360 (Part 6/Sec 20) : 2019 / ISO 4589-3 : 2017 Plastics — Methods of testing : Part 6 Thermal properties, Section 20 Flammability by oxygen index — Elevated temperature test <i>(first revision)</i>
v.	IS 13360 (Part 8/Sec 5) : 2019 / ISO 177 : 2016 Plastics — Methods of testing : Part 8 Permanence / Chemical properties, Section 5 Determination of migration of plasticizers <i>(first revision)</i>

7.3 Review of pre-2000 Standards

The Committee considered the Indian Standards published prior to pre 2000 and after deliberations decided as follows:



Item 8 INTERNATIONAL ACTIVITIES

8.1 Meetings of ISO TC/61 and its Subcommittees

The Committee NOTED that next meetings of ISO/TC 61 and its subcommittees are scheduled to held from 18-22 November 2024 in West Conshohocken (United States).

The Committee requested BIS Sectt to seek the nominations from organizations for Indian Delegations at the earliest.

Item 9 DATE AND PLACE OF NEXT MEETING

Date and place of next meeting to be decided in consultation with Chairperson.

Item 10 ANY OTHER BUSINESS

As there was no other business, the meeting ended with vote of thanks to the Chairperson and all the Committee members.

ATTENDANCE

SI No.	Name of Organization	Name and Representative	Email
1.	Central Institute of Petrochemicals Engineering & Technology (CIPET), Chennai	<u>Dr. Prof. Shishir Sinha</u> <i>(Chairperson)</i>	<u>shishir@cipet.gov.in</u>
		Dr. Smita Mohanty	drsmitamohanty@gmail.com
2.	CSIR - Central Food Technological Research Institute, Mysore	Dr. Arun Kumar P. Selvam	arunpselvam@cftri.res.in
		Sh. R. S. Matche	rsmatche@cftri.res.in
3.	CSIR - Indian Institute of Toxicology Research, Lucknow	Dr V P Sharma	vpsitrcl@rediffmail.com
4.	ExxonMobil Services and Technology Private limited, Bengaluru	Sh. Sarang Phul	sarang.phul@exxonmobil.com
5.	GAIL (India) Limited, New Delhi	Dr. Gopal Dayal	g.dayal@gail.co.in
		Dr. Nityananda Panda	nityananda.panda@gail.co.in
6.	Indian Centre for Plastics in the Environment, Mumbai	Sh. T. K. Bandopadhyay	tk.bandopadhyay@icpe.in
7.	Indian Flexible Packaging & Folding Carton Manufacturers Association, Mumbai	Sh. Atin Chaudhuri	atin.chaudhuri@gmail.com
8.	Jubilant	Dr. Kanak B Dass	kanak.dass@jubl.com
9.	National Chemical Laboratory, Pune	Dr. Arun Torris	t.arun@ncl.res.in
10.	National Test House, Ghaziabad	Dr. Shwet Vashishtha	shwet.raj@nic.in
11.	Opal India Ltd.	Sh. Susovan Adhikari	susovan.adhikari@opalindia.in
12.	PlastIndia Foundation, Mumbai	Dr. Mihir K. Banerji	mihirkbanerji@gmail.com
13.	Reliance Industries Limited, Mumbai	Sh. Amit Shah	amit3.shah@ril.com
		Sh. Shri Jignesh Modi	jignesh.r.modi@ril.com
14.	Research Designs and Standards Organization	Sh. KK Talreja	kktalr@gmail.com
15.	SGS India Private	Sh. Kamlesh	kamlesh.kumar@sgs.om

	Limited, Mumbai	kumar	
16.	Sabic Innovative Plastics India Private Limited, Bengaluru	Sh. Nagaraj Dhadesugur	nagaraj.dhadesugur@sabic.com
		Dr. Sumanda Bandyopadhyay	sumanda.bandyopadhyay@sabic.com
17.	Technical Training and Research Centre, Lohia Group, Kanpur	Sh. R. K. Dwivedi	Rajeev.dwivedi@lohiagroup.com
18.	Voluntary Organisation in Interest of Consumer Education (VOICE), New Delhi	Sh. M. A. U. Khan	mauk010144@gmail.com
		Dr. Rajiv Jha	jrajiv08@gmail.com
19.	BIS, HQ	Smt. Meenal Passi, H(PCD)	pcd@bis.gov.in
		Sh. Shivam Dwivedi	pcd@bis.gov.in