ISO/TC 216/WG 2 "Chemical Test methods for footwear and footwear components"
Convenorship: **AFNOR**
Convenor: **Minjaud Anne Mme**

MINUTES LYON 07-2024

Document type	Related content	Document date	Expected action
Meeting / Minutes	Meeting: Lyon (France) 9 Jul 2024	2024-09-02	**INFO**

ISO TC 216 WG2
Footwear and environmental aspects

CEN TC 309 WG 2
Footwear and environmental aspects

ISO TC216 WG2

LYON 9-10-11 july 2024

(29h Meeting)

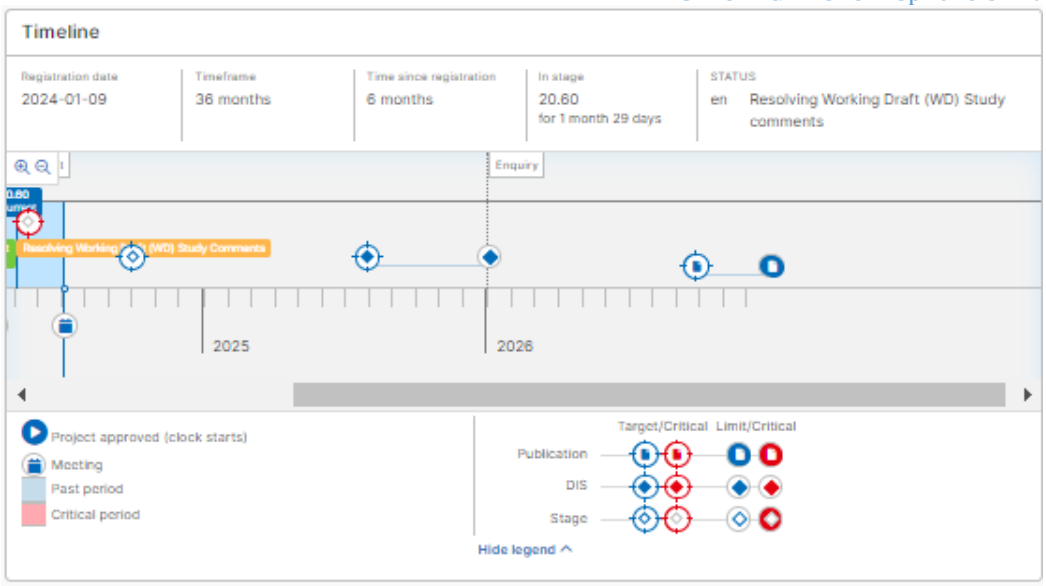
MINUTES

4 rue Hermann Frenkel
F69367 LYON France
tél 00.33.4.72.76.10.10

1. Opening of the meeting
2. Roll call of delegates and agreement of CEN/ISO Exploitation Rights agreement
3. Adoption of draft agenda TC216 WG2 N344 AGENDA LYON 07-2024
4. Approval of the report of the last meeting TC216 WG2 N345 MINUTES WEB MEETING 04-2024
5. Discussion of the NWI

❖ **ISO/AWI 23377**
Footwear — Critical substances potentially present in footwear and footwear components — Test method to quantitatively determine certain bisphenols in footwear materials
PL: Oliver HAUBRICH

TC216 WG2 N345 Bisphenols Draft 07-2024



Stage

Stage	Version	Description	Go to draft	Target date	Limit date	Started	Status
10.00	1	Proposal for new project registered				2023-07-06	Closed
10.20	1	New project ballot initiated		2023-07-06		2023-07-06	Closed
10.60	1	Close of voting		2023-09-28		2023-09-29	Closed
10.99	1	New project approved				2024-01-09	Closed
20.00	1	New project registered in TC/SC work programme		2024-02-21		2024-01-09	Closed
20.20	1	Working draft (WD) study initiated		2024-03-15		2024-03-15	Closed
20.60	**1**	**Close of comment period**		**2024-05-09**		**2024-05-10**	**Current**
20.99	1	WD approved for registration as CD					Awaiting
30.00	1	Committee draft (CD) registered		2024-10-04			Awaiting
30.99	1	CD approved for registration as DIS					Awaiting
40.00	1	DIS registered		2025-08-04	2026-01-09		Awaiting
40.99	1	Full report circulated: DIS approved for registration as FDIS					Awaiting
50.00	1	Final text received or FDIS registered for formal approval					Awaiting
60.00	1	International Standard under publication					Awaiting
60.60	1	International Standard published		2026-10-04	2027-01-09		Awaiting

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The standard was discussed on the first day (all the comments sent in prior to the meeting were seen and discussed).

At the level of this project, there is a lack of data from different laboratories to judge the robustness of the method.
Chang Wenkai presented some data (see Table 1 below), but these are not sufficient, particularly with regard to the choice of solvent.

Bisphenol test

Lab	
Sample	Fabric (62% nylon, 25% polyster, 13% Spandex)

Extraction solution	Extraction procedure		BPS results	Comment	NOTE
Acetonitrile (ACN)	Sonicate at 60 °C for 60 min	Settle down for 0 h	100,0	Extraction efficiency of ACN and MeOH is better than THF for this sample	Calibration solutions are prepared in THF:ACN:H_2O = 1:2:3 In case the BPS exceeds the range of calibration curve, dilute the solution with THF:ACN:H_2O Df is dilution factor
Methanol (MeOH)			197,0		
Tetrahydrofuran (THF)			49,6		
Tetrahydrofuran (THF)	Sonicate in THF at 60 °C for 60 min Add ACN and shake for 1 min Add H_2O and shake for 1min (THF:ACN:H_2O = 1:2:3)	Settle down for 0 h	55	When the fabric sample was contacted with ACN and H_2O for 1-2 hours, more BPS was extracted out	
		Settle down for 1 h	121		
		Settle down for 2 h	129		

We need proofs and/or internal standards (Ad8 for Bisphenol A and Sd8 for other Bisphenols).

Oliver Haubrich will prepare the WD for September, a draft which may be modified afterwards.
Cross-testing between laboratories will have to be launched, but this will not block progress on the standard (creation of sub-group 1).
We can ask for a 9-month deadline extension if necessary, if we're too tight on the timings.

Next steps:

- August/September : Oliver Haubrich sends the draft standard (following work/modifications at the July meeting) to Anne Minjaud, who shares it with all participants.
- September/October: Sub-group 1: Nathalie Humbert / Béatriz Serrano and Oliver Haubrich schedule a team meeting to decide on the chosen solvent and establish a protocol for interlaboratory testing for bisphenol (test to be carried out on samples with and without bisphenols).
- December: Next WG2 meeting on the subject to share progress made by sub-group 1 on this draft standard and validate the ILT test protocol before launch.

Objective

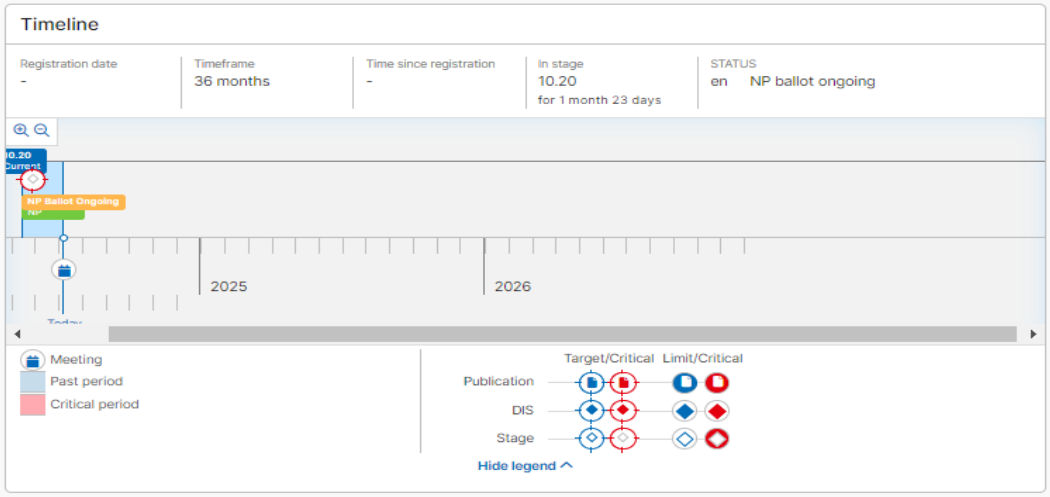
- Finalize ILT by end March 2025
- Finalize the project in May 2025 at the plenary meeting
- Send draft to Public Enquiry in July/August 2025

- **ISO/NP 25253-1 & 25253-2**
  - ⇨ Footwear – Critical substances potentially present in footwear and footwear components – Per and polyfluoroalkyl substances (PFAS) – Part1
    Determination of non-volatile compound by solvent extraction and liquid chromatography
    PL: Maxwell KIM

    TC216 WG2 N321 draft PFAS-1 01-2024
    TC216 WG2 N312 draft PFAS-1 09-2023

  - ⇨ Footwear – Critical substances potentially present in footwear and footwear components – Per and polyfluoroalkyl substances (PFAS) – Part 2
    Determination of volatile compound by solvent extraction and gas chromatography
    PL: Maxwell KIM

    TC216 WG2 N 313 draft PFAS-2 09-2023



Stage

Stage	Version	Description	Go to draft	Target date	Limit date	Started	Status
10.00	1	Proposal for new project registered				2024-05-16	Closed
10.20	**1**	**New project ballot initiated**		**2024-05-15**		**2024-05-16**	**Current**
10.60	1	Close of voting		2024-08-07			Awaiting
20.00	1	New project registered in TC/SC work programme					Awaiting
20.20	1	Working draft (WD) study initiated					Awaiting
20.60	1	Close of comment period					Awaiting
30.00	1	Committee draft (CD) registered					Awaiting
40.00	1	DIS registered					Awaiting
50.00	1	Final text received or FDIS registered for formal approval					Awaiting
60.60	1	International Standard published					Awaiting

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The standard was discussed on the second and third day of the meeting (all comments received prior to the meeting were reviewed and discussed).

In addition to those present on the previous day, Mr. Felix from Diechmann was also present on the second day of the meeting.
The need to be able to differentiate between the various PFASs: determination of bound PFAs (NaOH extraction) and determination of free PFAs (methanol extraction) was discussed at length, as it has major implications for shoe manufacturers.

On this subject, Bénédikt Hendan, in the context of the evolution of textile PFAs standard *17681-1 (Old version methanol extraction / New version NaOH hydrolysis) shared a presentation (See doc CEN-TC 248-WG 26_N656_20240226-PFAS-prEN 17681-1_ Assessing the limits_ PPT by TECHNICAL ADVICE)*
TC 216 WG2 N348 CEN-TC 248-WG 26_N656_20240226-PFAS-prEN 17681-1_ Assessing the limits_ PPT by TECHNICAL ADVICE

The wg2 did not wish to create a 3rd part for this standard but, in order to find a consensus, proposed to split the part -1 standard into 2 “chapters” in order to propose 2 extraction methods: With and without NaOH hydrolysis.
This is the work that was carried out on the part-1 standard.
The 2 parts have been worked on.

A sub-group 2 was set up to work on the technical aspects of this subject, taking into account the fact that footwear contains different materials (textile, polymer board, metal, metal parts), and that all these materials must be taken into account by the standard. Kerstin from TUV is currently carrying out tests on plastic.

Next steps:

- August/September: Maxwell Kim-David Eom send the draft standard (following work/modifications at the July meeting) to Anne MINJAUD, who shares it with all participants.
- October: Sub-group 2: Benedikt Henan / Maxwell Kim-David Eom / Béatriz Serrano plan a team meeting in October to discuss the results obtained by then, and prepare a protocol for inter-laboratory testing of PFAS.
- December: Next WG2 meeting on the subject at the end of the year to share progress made by sub-group 2 on this draft standard and validate the ILT test protocol prior to launch

Objective:

- Finalize ILT end of March 2025
- Work on the project in May 2025 at the plenary meeting (integrating ILT results)

❖ **ISO/DIS 20686**
Footwear - Critical substances potentially present in footwear and footwear components - Determination of certain organic solvents

- Since the previous meeting, the convenor has prepared the documents (new documents taking in account the comments discussed during the 28th meeting in Madrid) and has shared them for 2 weeks with TC216WG2 (until 30 April 2024)

- The entire group has approved the document, it has been sent for FDIS Ballot (Formal Vote)

TC216 WG2 N340 ISO_FDIS 20686 Sandard Draft after webmeeting 04-24 (clean version)
TC216 WG2 N339 ISO_FDIS 20686 Sandard Draft after webmeeting 04-24 (with track changes)

❖ **ISO/DIS 16179**
Footwear - Critical substances potentially present in footwear and footwear components - Determination of organotin compounds in footwear materials

- Since the previous meeting, the Project Leader has prepared the documents (new documents taking in account the comments discussed during the 28th meeting in Madrid) and has sent them to the convenor

- The convenor has shared them for 2 weeks with TC216 WG2 (until 30 April 2024)

- The entire group has approved the document, it has been sent for FDIS Ballot (Formal Vote)

TC216 WG2 N342 ISO_FDIS 16179 Standard Draft after webmeeting 04-24 (clean version)
TC216 WG2 N341 ISO_FDIS 16179 Standard Draft after webmeeting 04-24 (with track changes)

Nota : When applying the method, false-positive results for tetra-n-ethyl-tin may be obtained if tin ions or Et(1-3)SnCl(3-1) compounds are present in the sample.
The question of maintaining the Formal Vote was discussed.

6. Next meeting
   December 2024

7. Closure of the meeting
   Anne MINJAUD thanked those being present for their intensive and cooperative work and the good contribution to the meeting.

MEETING ATTENDANCE LIST

Meeting **29th meeting of ISO/TC 216/WG 2**

Place and date **France (Lyon)**
09 Jul 2024 to 11 Jul 2024

Name and first name	Appointed by ISO Member Body or organization in liaison	Status
CHANG Wenkai Mr	SAC (China)	Attended **Face-to-Face**
Minjaud Anne Mme	AFNOR (France)	Attended **Face-to-Face**
Haubrich Oliver Mr Dipl.-Chem.	DIN (Germany)	Attended **Face-to-Face**
Hendan Benedikt Mr Dr.	DIN (Germany)	Attended **Face-to-Face**
Lal Ajay Kumar Mr	BIS (India)	Attended **Virtual**
Prabha Preeti Ms	BIS (India)	Attended **Face-to-Face**
Eom David Mr	KATS (Korea, Republic of)	Attended **Face-to-Face**
Kim Maxwell (Jae Woo) Dr	KATS (Korea, Republic of)	Attended **Face-to-Face**
COMPANY Maria Mrs.	UNE (Spain)	Attended **Face-to-Face**
Serrano Gomicia Beatriz Ms	UNE (Spain)	Attended **Face-to-Face**
Heels Martin Mr	BSI (United Kingdom)	Attended **Face-to-Face**