Entwicklungs- und Prüflabor Holztechnologie GmbH · Zellescher Weg 24 · 01217 Dresden · Germany

KRONOSPAN-MOFA Hungary Kft.
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Dresden, 22/05/2026
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Supervision Report 2117025/2026/02/MDF/CARB-EPA-IKEA

Client:	KRONOSPAN-MOFA Hungary Kft. Budapesti oút 72. H-7700 Mohács Hungary
Task:	Third Party supervision, assessment and evaluation report on the periodic on-site inspection of the client`s quality assurance program, quality control testing, and quarterly formaldehyde emission testing concerning the assessment and verification of the constancy of performance for the product types designated under point 1, in accordance with ☒ *EPA TSCA Title VI – 40 CFR Part 770* ☒ *CARB Phase 2 – 17 CCR § 93120* ☒ *IKEA IOS-MAT-0003 v18*
Supervision:	Regular Supervision in Quarter 2/2026
Third Party Certifier (TPC):	Entwicklungs- und Prüflabor Holztechnologie GmbH (EPH) Zellescher Weg 24 01217 Dresden Germany EPA TSCA Title VI- and CARB-recognized TPC-10 IKEA-approved TPC
Person in charge:	Dipl.-Chem. C. Osthaar

The report contains 6 pages and 2 annexes.
Any publication - including excerpts - from this report requires the prior written consent of EPH.

1 Task

By order of California Air Resources Board (CARB) with reference to the executive order W-**25**-010 and recognition by Environmental Protection Agency (EPA), the Entwicklungs- und Prüflabor Holztechnologie GmbH (EPH), was approved as Third Party Certifier, with assigned number TPC-10, to provide certification services under Toxic Substances Control Act (TSCA) Title VI - 40 Code of Federal Regulations (CFR) Part 770 - Formaldehyde Standards for Composite Wood Products – issuing authority is the U.S. Environmental Protection Agency (EPA) and Final Regulation Order of "Airborne Toxic Control Measure (ATCM) to Reduce Formaldehyde Emission from Composite Wood Products" - § 93120 - 93120.12, title 17, California Code of Regulations – the implementing authority is the California Air Resources Board (CARB).

Manufacturer of composite wood products must demonstrate compliance with *EPA TSCA Title VI* and *CARB Phase 2* regulations by third party supervision and certification. These final rules include formaldehyde emission standards applicable to hardwood plywood (HWPW), medium density fiberboard (MDF), and particleboard (PB), that are sold, supplied, offered for sale, or manufactured (including imported) in the United States and on the Californian market.[1]

Periodic inspections are carried out four times a year according to the requirements of TSCA Title VI - § 770.7 (c)(4)(i)(A)-(F) and Final Regulation Order § 93129.12 Appendix 3.

The CARB/EPA-recognized TPC

(A) verifies that the panel producer's quality assurance and quality control procedures are complying with the requirements
(B) verifies the panel producer's quality control test results compared with test results from ASTM E1333-14 or ASTM D6007-14, if used, by having the TPC laboratory conduct quarterly tests
(C) establishes quality control limit(s) (QCLs) for each product type
(D) establishes a process that will be used to determine if products are exceeding the applicable QCL
(E) provides the CARB or EPA TPC number to the panel producer for labeling and recordkeeping; and
(F) inspects the panel producer, its products and records at least quarterly

IKEA specification no. IOS-MAT-0003 v18: The section 1.4. covers board materials that are in the scope of *EPA TSCA Title VI* and *CARB Phase 2* regulation. All boards shall be certified by an IKEA-approved TPC regarding CARB and US EPA TSCA title VI.

KRONOSPAN-MOFA Hungary Kft. has assigned Entwicklungs- und Prüflabor Holztechnologie GmbH (EPH) as an EPA TSCA Title VI-recognized and CARB-approved TPC-10, as well as an IKEA-approved TPC with the regular quarterly supervision, including on-site inspections, monitoring of the manufacturer's quality assurance program and quality control facilities, and determining the formaldehyde emission of fiberboards in accordance with the aforementioned regulations.

Third Party Supervision and Certification Agreement no.: MDF/HDF -08-12-08 dated 8 December 2008 with amendment of 4 July 2017						
Product no.	**Product type** [2]	**Product name** [3]	**Resin type**	**Thickness range**	**CARB Phase 2/ EPA TSCA Title VI**	**IKEA IOS-MAT-0003**
Product 1	Thin MDF	Fiberboard MDF/HDF E-LE	mUF	2 mm to 8 mm	☒	☒

[1] EPA aligned, to the extent practicable, the EPA TSCA Title VI requirements with those in the CARB Phase 2 to avoid placing differing or duplicate requirements on the regulated community.
[2] Product types classified acc. to EPA TSCA Title VI and CARB Phase 2 regulations
[3] Assigned by manufacturer. Multiple products can be grouped into a single product type for certification; formaldehyde emissions test results must demonstrate that grouped products have similar formaldehyde emissions fit the same correlation curve or linear regression.

2 Procedure

2.1 Supervision audit

Date of the supervision audit:	5 May 2026 - 2nd Quarter 2026	☒ on-site ☐ remote[4]
Participants TPC:	Mr. G. Kun – Representative EPH Mr. L. Neef – EPH Dresden	
Participants client:	Mr. G. Kátoli (quality control manager) Mr. T Fáczàn (head of laboratory)	
Inspected plant facility:	board production, board warehouse, quality control test laboratory	
Inspected documents:	quality control manual, quality control data, production records, laboratory equipment maintenance and calibration records	

After the manufacturing site audits were completed, a copy of the checklist was provided to the client.

2.2 Sampling

Samples were randomly selected by EPH's TPC auditor from a single batch ready for shipment, ensuring that the top and bottom composite wood products of the bundle were excluded. The samples were labeled, securely sealed in airtight packaging with polyethylene film, and promptly shipped to the TPC laboratory.

Product no.	Product 1
EPH-Identity-no.:	R-HDF-1-26/R1-1/1...14
Product type:	Thin MDF
Product name:	Fiberboard MDF/HDF E-LE
Resin type	MDM 2050
Thickness range:	2 mm to 8 mm
Batch/Lot no.:	151/01
Production date:	2026-05-03
Panel thickness:	5.0 mm
Dimension of panel:	2800 x 2070 mm

3 Findings of supervision audit

- The quality control manual (version 21, dated 2024-09-24) has been reviewed and approved. The manual complies with the requirements of § 770.21 (a)(i)-(xii) and the panel producer's quality assurance procedures are adequate to ensure that the required emission limits are being met on an ongoing basis.
- All relevant manufacturing parameters and procedures are recorded in regular intervals allowing the detection of production failures and products not meeting the requirements.
- Quality control testing is done acc. to:

☐ Perforator method acc. to EN ISO 12460-5
☐ Dynamic Micro Chamber (DMC)
☐ Dessicator test method acc. to JIS A 1460
☒ Gas analysis method acc. to EN ISO 12460-3
☒ Chamber test acc. to ASTM D6007
☐ Dessicator test method acc. to ASTM D5582

Standard operating procedure is available.

[4] The remote audit was conducted in accordance with the California Air Resources Board's guidance for third-party certifiers regarding unsafe conditions (dated October 20, 2020), and the EPA FAQ on implementing the Formaldehyde Standards for Composite Wood Products Act – Chapter: Third-Party Certifiers, Question #13.

- Correlation between ASTM E1333-14/ASTM D6007 and quality control test method has been demonstrated for each testing apparatus in accordance with § 770.20 (d)(2)(i)(ii): for perforator method in 2020 respectively for gas analysis method in 2020.
- The test frequency complies with the requirements of § 770.20 (b)(2)(i)(A)-(E). The tests are fixed in a control plan and are conducted promptly after manufacture and before delivery of the boards.
- The documentation of the quality control data has been checked. The test results of the quality control testing are recorded separately for each product type. The randomly controlled quality control results have shown that the quality control limits are fulfilled.
- The manufacturer provides the TPC with monthly quality control data reports of each product type according to § 770.40 (b).
- All laboratory equipment used in the quality control testing of formaldehyde content and emissions is regularly calibrated, maintained, and operated in accordance with the manufacturer's specifications.
- The quality control personnel are sufficiently experienced and trained to perform precise chemical quantitative analytical tests. Furthermore, they were interviewed and assessed to verify their qualifications.
    - Annual certification through the "Quantitative Analytical Test": ☐ yes ☒ no
- An examination of the quality control test method was carried out on a randomly selected sample to assess the procedure, equipment, and compliance with limit values.
- There are rules for internal blocking criteria for non-complying products and external complaints. Sufficient documentation is provided, and possible corrective measures are defined.
- The manufacturer labels certified products with the required identification information in accordance with EPA TSCA Title VI § 770.45, CARB Phase 2, and the relevant IKEA provisions.
- Additional tests due to deviations from reference parameters: ☐ yes ☒ no
- Production of non-complying lots during last supervision period: ☐ yes ☒ no
- Changes to the product/plant equipment/production process: ☐ yes ☒ no

4 Testing by TPC laboratory

The test results are compiled in test reports
no. 2117025/2026/02/MDF/CARB-EPA-IKEA (annex 1),
no. 2117025/2026/02/MDF/FPC/CARB-EPA-IKEA (annex 2),
no. 2117025/2026/02/MDF/QCL/CARB-EPA-IKEA (annex 3), all dated 22 May 2026.

5 Evaluation

☒ Manufacturer's quality assurance program is in compliance with the requirements of *EPA TSCA Title VI* and *CARB Phase 2* and with the additional requirements of *IKEA IOS-MAT-0003 v18*.

☒ Inspection of the quality control test method at the manufacturer
☒ did not reveal any non-conformities. ☐ non-conformities as specified in section 3

☒ Comparison tests of the quality control test method between the manufacturer and the TPC laboratory have been conducted to verify their proficiency and alignment.
☒ did not reveal any non-conformities. ☐ non-conformities as described in test report (annex 3)

☒ The release of formaldehyde emission of the present product has been determined (s. EPH-Identity-no.). The detailed test results can be found in test report (annex 1).

☒ The product complies with the limit value of ASTM E1333 or ASTM D6007 = 0.13 ppm according to formaldehyde release of *EPA TSCA Title VI* and *CARB Phase 2* regulations.

☒ For *IKEA IOS-MAT-0003 v18*, compliance to the limit of ASTM E1333 or ASTM D6007 = 0.08 ppm has been verified and confirmed.

☒ KRONOSPAN-MOFA Hungary Kft. requested the change of the product name to Fiberboard MDF/HDF E-LE in the nominal thickness range of 2 mm to 8 mm to align with the certification acc. to the GPCO and IKEA IOS-MAT-0181 carried out by TPC-15.

Fiberboard MDF/HDF E-LE ≤ 8 mm			Applicable QCL[5]				Criteria fulfilled	
			CARB/EPA		IKEA[6]		TSCA Title VI/ CARB Phase 2	IOS-MAT-0003 v18
			Hot QCL	Shipping QCL	Hot QCL	Shipping QCL		
Product no. 1								
EPH								
ASTM E1333-14	**[ppm]**	**0.03**	/				**YES**	**YES**
EN ISO 12460-3	**[mg/ m²h]**	**0.8**	/				**n/a**	**n/a**
Manufacturer – HOT values								
EN ISO 12460-3	**[mg/ m²h]**	**1.3**	***(4.3)***	***(3.3)***	**2.7**	**2.0**	**YES**	**YES**

n/a... not applicable

The limit values in accordance with the requirements of *EPA TSCA Title VI* - 40 CFR Part 770 - Formaldehyde Standards for Composite Wood Products - § 770.10 (b)(1)-(4) "Formaldehyde emission standards" and *CARB Phase 2* - Final Regulation Order of "ATCM to Reduce Formaldehyde Emission from Composite Wood Products" - § 93120 - 93120.12, title 17, California Code of Regulations, § 93120.2 (a) "Formaldehyde Emission Standards for Hardwood Plywood (HWPW), particleboard (PB), and Medium Density Fiberboard (MDF)" and IKEA specification no. *IOS-MAT-0003*, version no. AA-10899-18 - Formaldehyde requirements of wood, wood-based and wood-like natural materials and products, are provided in the annex of the test report.

6 Non-conformities and notes

6.1 Fulfilment of non-conformities of previous supervision

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6.2 New non-conformities and notes

☒ None.

☐ Minor deviations - items as specified in section 2.1.3: verification that corrective action has been effectively documented and implemented, will be checked at next on-site inspection.

☐ Major deviations - certification of _____ suspended due to failure at quarterly formaldehyde emission compliance test. Recertification of _____ by compliance test according to ASTM E1333 or ASTM D6007 shall be carried out within the next 6 weeks.

☐ Critical deviations - certification to be issued following a satisfactory follow-up visit and verification that corrective action have been effectively documented and implemented.

☐ Others:

7 Summary evaluation of supervision

Following the inspection of the manufacturing facility, it can be confirmed that both the personnel and equipment are adequately structured to ensure continuous and consistent production. Furthermore, the procedures and testing frequency for quality control methods fully comply with the requirements of EPA TSCA Title VI and CARB Phase 2 in all essential aspects.

The product adheres to the formaldehyde release limit values specified in *EPA TSCA Title VI, CARB Phase 2, and IOS-MAT-0003 v18* regulations.

It can be confirmed that the manufacturer has provided proof of meeting all necessary requirements to maintain certification.

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[5] If EPA/CARB QCL ≠ IKEA limits = Internal restriction to lowest limit (CARB/EPA respectively IKEA). QCL means the value from the quality control test method at manufacturer that is the correlative equivalent to the maximum value in the chamber tests ASTM E1333 or ASTM D6007 permitted by the applicable emission standard for the product type.

[6] Calculated based on the applicable emission standard acc. to IOS-MAT-0003 v18 1.4.3 table 4 (0.08 ppm).

The issuance of the initial certificate (IC) for CARB Phase 2 of product 1 is recommended.
The issuance of the initial certificate (IC) for TSCA Title VI of product 1 is recommended.
The issuance of the attestation of compliance with IKEA IOS-MAT-0003 v18 of product 1 is recommended.

Product no.	Product name	Thickness range	CARB Phase 2 (IC)	TSCA Title VI (IC)
Product 1	Fiberboard MDF/HDF E-LE	2 mm to 8 mm	TSCA-CARB-2026-05-22-01	

Next on-site inspection due: 3rd Quarter 2026

Dresden, 22 May 2026

Dipl.-Chem. C. Osthaar
Person in Charge TPC

8 Review and certification decision

The results of the supervision, documented in this report, were assessed. The assessor agrees to the conclusions of section 5 (evaluation), section 6 (non-conformities) and section 7 (summary).

The issuance of the initial certificate acc. CARB Phase 2 of product 1 is hereby confirmed.
The issuance of the initial certificate for TSCA Title VI of product 1 is hereby confirmed.
The issuance of the attestation of compliance with IKEA IOS-MAT-0003 v18 of product 1 is hereby confirmed.

Dresden, 22 May 2026

Dr.-Ing. Rico Emmler
Head of Certification Body