

Indoor Air Quality - Furniture

2022 Initial Certification Assessment

SCS Environmental Certification Services

Prepared for:

B & T Design

Headquartered in Kocaeli, Turkey

Seating and Tables

Project Work Order: BT-22-01

August 11, 2022



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Indoor Air Quality Initial Certification Assessment

SCS Global Services, Environmental Certification Service completed an Indoor Air Quality certification assessment of B & T Design's seating and tables products manufactured in Turkey and Bulgaria. The lead auditor has completed a full assessment of the quality management assessment of each manufacturing site and product emissions review to determine conformance to SCS EC 10.3 - 2014 Indoor Air Quality Performance Standard, CDPH/EHLB Standard Method (CA 01350) v1.2-2017 and ANSI/BIFMA M7.1/X7.1 Furniture Emission Standard. The results of the assessment are included within this assessment report.

This certification assessment has been completed in accordance with SCS' quality management system, ISO 19011 standard auditing practices, ISO/IEC 17065 and has been approved by the program manager. If there is a disagreement with the certification decision, please contact the Lead Auditor directly.

Authorized Signatures

AUDITOR INFORMATION			
Lead Auditor	Holly Bajko, Senior Technical Specialist hbajko@scsglobalservices.com +1.831.421.1200	Date	August 11, 2022
SCS FINAL REVIEWER SIGNATURE			
SCS Decision Maker	Erik Hanba, Operations Director ehanba@scsglobalservices.com +1.510.421.1540		
Signature		Date	August 11, 2022

Executive Summary

Assessment Scope

B & T Design's products and associated manufacturing site assessed for Indoor Advantage™ Gold certification is detailed in the associated work order, BT-22-01.

Quality Management System Review

The table below includes a review of the manufacturer's quality management system in accordance to SCS EC10.3-2014. Table is applicable to all sites within the assessment scope.

REQUIREMENT	SUPPORTING DOCUMENTATION	AUDITOR KEY FINDINGS	CONFORMANCE ISSUE
QMS Certification Valid ISO 9001 or third party certification was submitted (Not Required)	ISO 9001.pdf	Expiry: 11/24/22	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
Production Flow Chart / Process Description [Reference: SCS-EC10.3-2014-Section 6.5]	KYS-SEH - PROCESS FLOW CHART.xls	Requirement met.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
Corrective/Preventative Action Procedure [Reference: SCS-EC10.3-2014-Section 6.5]	KAL-FR-014- INTRODUCTION QUALITY CONTROL FORM.doc KAL-FR-007- FINAL QUALITY CONTROL FORM.xls YN-PR-01- CUSTOMER SATISFACTION AND COMPLAINTS PROCEDURE.doc	Requirement met.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
Product Line Identification and Traceability [Reference: SCS-EC10.3-2014-Section 6.5]	TRACEABILITY.xls	Requirement met.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
Disclosure of Product Variability [Reference: SCS-EC10.3-2014-Section 6.5]	N/A	N/A	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR

Certification Assessment Results

Emissions Summary and Recommendations

Tested Product/Material	Dante Bar
Lab Report #	57541-A002
Manufacturing Site(s)	Dilovasi, Turkey
Model Type	Seating
Sample Result Summary	Product complies with all indoor air quality emissions criteria.
Sample Plan Rationale	The seating sample represents the worst-case for all seating products as it contains a bent plywood seat back and solid wood legs in the largest single-seat option containing these emitting materials.
Reference Documentation	B&T Design_2022_IAQ_WKBK_seating.xls

Compound Concentration ($\mu\text{g}/\text{m}^3$)	Indoor Advantage™		Indoor Advantage™ Gold							
	ANSI/BIFMA M7.1/X7.1 (ANSI/BIFMA e3 7.6.1) Seating Parameters		ANSI/BIFMA e3 7.6.2 Seating Parameters		CA 01350 Office Seating Scenario		CA 01350 School Classroom Scenario		ANSI/BIFMA e3 7.6.3 Seating Parameters	
	Modeled	Maximum Allowable	Modeled	Maximum Allowable	Modeled	Maximum Allowable	Modeled	Maximum Allowable	Modeled	Maximum Allowable
Ethylbenzene	--	--	0.30	1000	0.30	1000	0.53	1000	--	--
Toluene	--	--	0.21	150	0.21	150	0.37	150	--	--
Xylenes (o-, m-, p-)	--	--	2.19	350	2.19	350	3.83	350	--	--
Formaldehyde	0.00	30.71	0.00	16.5	0.00	9	0.00	9	0.00	9
Phenylcyclohexene (4-PCH)	0.00	6.50	--	--	--	--	--	--	--	--
TOTAL VOC	6.45	250	--	--	--	--	--	--	--	--
TOTAL Aldehydes (ppb)	0.00	50	--	--	--	--	--	--	--	--
RESULT	PASS		PASS		PASS		PASS		PASS	

Tested Product/Material	Modest
Lab Report #	57541-A001
Manufacturing Site(s)	Dilovasi, Turkey
Model Type	Individual Furniture Component
Sample Result Summary	Product complies with all indoor air quality emissions criteria except 7.6.1 open plan.
Sample Plan Rationale	The table sample represents the worst-case for all tables products as it is the thickest veneer top
Reference Documentation	B&T Design_2022_IAQ_WKBK_tables.xls

			Indoor Advantage™		Indoor Advantage™ Gold				
			168-hour Maximum Allowable		336-hour Maximum Allowable				
Compound Emission Factor (µg/m ² -hr)	168-hour Actual	336-hour Predicted	ANSI/BIFMA M7.1/X7.1 (ANSI/BIFMA e3 7.6.1) Open Plan	ANSI/BIFMA M7.1/X7.1 (ANSI/BIFMA e3 7.6.1) Private Office	CA 01350 Open Plan	ANSI/BIFMA e3 7.6.2 Open Plan	ANSI/BIFMA e3 7.6.2 Private Office	ANSI/BIFMA e3 7.6.3 Open Plan	ANSI/BIFMA e3 7.6.3 Private Office
Acetaldehyde	--	1.49	--	--	48	48	97	--	--
Ethylbenzene	--	0.98	--	--	689	689	1392	--	--
Formaldehyde	6.30	5.52	42.3	85.1	6.2	11	23	6.2	12.5
Toluene	--	3.28	--	--	103	103	209	--	--
Xylenes (o-, m-, p-)	--	8.77	--	--	241	241	487	--	--
Phenylcyclohexene (4-PCH)	0.00	--	4.5	9.0	--	--	--	--	--
TOTAL VOC	380.00	--	345	694	--	--	--	--	--
TOTAL Aldehydes (in umol/m ² -hr)	0.16	--	2.8	5.7	--	--	--	--	--
RESULT			FAIL	PASS	PASS	PASS	PASS	PASS	PASS

Lab Testing Requirements

The table below is a checklist of the standard requirements for product testing and report results according to SCS EC10.3-2014 Indoor Air Quality Performance Standard and ANSI/BIFMA M7.1/X7.1.

REQUIREMENT	SUPPORTING DOCUMENTATION	AUDITOR KEY FINDINGS	CONFORMANCE ISSUE
Laboratory is a qualified ISO 17025 certified laboratory. [Reference: SCS-EC10.3-2014-Section 6.3.2]	57541.A001.ERKE Sürdü.PB Test report -L.EN.pdf 57541.A002.ERKE Sürdü.PB Test report -L.EN.pdf	Eco-Institut is an SCS-approved lab.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
The manufacturer has submitted results in accordance with ANSI/BIFMA M7.1/X7.1 [Reference: SCS-EC10.3-2014-Section 6.3.3]	57541.A001.ERKE Sürdü.PB Test report -L.EN.pdf 57541.A002.ERKE Sürdü.PB Test report -L.EN.pdf	Requirement met.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
Samples for testing are selected by a SCS auditor or a person authorized by SCS. [Reference: SCS-EC10.3-2014-Section 6.2]	Email: B&T Design 2022 Initial Sample Plan	Samples selected be an SCS Lead Auditor.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
The samples are selected from a production lot that is representative of the processes and quality the manufacturer intends to present to the market. [Reference: SCS-EC10.3-2014-Section 6.2]	57541.A001.ERKE Sürdü.PB Test report -L.EN.pdf 57541.A002.ERKE Sürdü.PB Test report -L.EN.pdf	Small-scale samples are representative of the typical production process.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR
Samples submitted to the laboratory are in accordance with ANSI/BIFMA M7.1/X7.1. [Reference: SCS-EC10.3-2014-Section 6.2]	57541.A001.ERKE Sürdü.PB Test report -L.EN.pdf 57541.A002.ERKE Sürdü.PB Test report -L.EN.pdf	Requirement met.	<input checked="" type="checkbox"/> No issue <input type="checkbox"/> OFI <input type="checkbox"/> NIR <input type="checkbox"/> NCR

Indoor Air Quality Certification Summary

The following table details the conformance and product categories that have met Indoor Advantage™ Gold product certification requirements. Products that have met Indoor Advantage™ Gold certification also comply with the following criteria: Collaborative for High Performance Schools (CHPS) 2009 Criteria, EQ2.2.3; and USGBC LEED 2009 and V4 criteria for low emitting materials (Furniture).

The certification date range for the products certified below is August 11, 2022 through August 10, 2023.

CERTIFICATE NUMBER	PRODUCT CATEGORY	CERTIFICATE CHANGES	CONFORMANCE	QUALIFICATIONS
(NEW) SCS-IAQ-08153	Seating	(ADD) Rego X Ayak, Rego 4'lü Tekerlekli Ayak, Rego 5'li Tekerlekli Ayak, Rego Elips Ayak, Pera Kollu Elips Ayak, Pera 4'lü Tekerlekli Ayak, Pera X Ayak, Pera Yeni Tel Ayak, Pera Premium Ofis, Pera Tel Ayak, Lamy Premium Ofis, Lamy Premium Elips Ayak, Lamy Premium Tel Ayak, Lamy Premium X Tel Ayak, Lamy Premium Metal Ayak, Daisy Tel Ayak, Daisy Premium Ofis, Daisy 4'lü Sis Ayak, Mentor Executive, Mentor Alçak Sırtlı, Mentor Bekleme, Frame 4'lü Tekerlekli Sis Ayak, Frame 5'li Tekerlekli Sis Ayak, Zone Ofis 4'lü Tekerlekli Ayak, Zone Ofis 5'li Tekerlekli Ayak, Zone Executive, Pera Tel Ayak Bar, Pera Bar Elips Ayak, Dia 50 Bar, Alek Lounge, Dante, Dion Lounge, Mika, Spirit, Dupont Bar, Hazel, Mika Bar, Rift Kollu Ahşap Ayak, Dion Bar, Spirit Bar, Daisy Papel Ayak, Dante Bar, Led, Bob, Pick, Piu, Mabel, Mabel Comfort, Matt, Loft L1B, Flint	(NEW) Indoor Advantage™ Gold Indoor Air Quality Certified to SCS-EC10.3-2014 v4.1 Conforms to the ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2021) and ANSI/BIFMA e.3-2019 (Credits 7.6.1, 7.6.2, 7.6.3) for seating parameters.1 Also, conforms to the CDPH/EHLB Standard Method (CA 01350) v1.2-2017 for seating1 and school classroom parameters.2 1 Modeled as Office Seating 2 Modeled as Pupil Seating	None

<p>(NEW) SCS-IAQ-08154</p>	<p>Tables</p>	<p>(ADD) Modest, Drage Metal, Globe, Sini, Noa, Petty</p>	<p>(NEW) Indoor Advantage™ Gold Indoor Air Quality Certified to SCS-EC10.3-2014 v4.1 Conforms to the ANSI/BIFMA Furniture Emissions Standard (M7.1/X7.1-2011 R2021) and ANSI/BIFMA e.3-2019 (Credits 7.6.2, 7.6.3) for the open plan and (Credits 7.6.1, 7.6.2, 7.6.3) private office workstation parameters.1 Also, conforms to the CDPH/EHLB Standard Method (CA 01350) v1.2- 2017 for the open plan and school classroom parameters.1 1 Modeled as Individual Furniture Components</p>	<p>None</p>
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Product Conformance Summary

No production or quality management system conformance issues were identified in this audit. The client continues to perform as a low-risk manufacturer and has reported reduced emission profile for this renewal assessment by submitting samples that have followed a typical manufacturing procedure versus a rush production procedure.

Appendix – Renewal Audit Recommendations

Renewal Sample Selection

The following table represents suggested sample selections for emissions testing. The frequency and required number of samples is dependent on the quality management systems review per manufacturing site and emissions history review completed during each renewal assessment by the auditor. At minimum, the recommended sample plan is based on renewal testing at a three-year frequency, unless there have been changes to the materials, production or quality management system that could increase the emissions profile of the representative product for each product category.

Testing should not be required during the 2023 assessment pending no major material production, supplier, or quality management changes.

PRODUCT CATEGORY	PRODUCT LINE/MATERIAL	PAST LAB RESULT	RENEWAL YEAR	AUDITOR RATIONALE
Seating	Dante Bar	57541-A002	2025	Worst-case representative test results expire after three years. The samples will need to be retested prior to the referenced renewal year.
Tables	Modest	57541-A001	2025	