

Report No.: 158328852a1 001
Client: RICHLOOM FABRICS
Contact information: 100 Bailey Plant Road, Clinton, SC 29325, US
Contact name : Kevin Jones
Phone number : 864-938-9117 x192
Manufacturer ID : 492753150929
Product name : Type II IMO Wallcovering
Product category : Wall covering only
Product commercial part no. : n/a
Product item no. : n/a
Date manufactured : 2024-12-09
Date collected : 2024-12-09
Date shipped : 2026-04-06
Sample no. : A004256854
Date Received : 2026-04-20
Condition at delivery : Test item complete and undamaged
Place of testing : Chemical laboratory Hong Kong
Conditioning period : 2026-04-30, 10 Days
Test period : 2026-05-10, 96 hours
Other information : Sample package: Sample packed with/ in Carton box, Plastic bag, aluminium
Sample preparation: 1 pieces of specimen of 1.35 m by 0.51 m were tested with back and sides sealed by aluminum foil.

Test Specification:

CDPH/ EHLB/ Standard Method Version 1.2 - California Specification 01350

Test result:

PASS

For and on behalf of
TÜV Rheinland Hong Kong Ltd.



2026-05-22

Charles Ng / Technical Manager

Date

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed. This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

"Decision Rule" document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

Test method

CDPH/ EHLB/ Standard Method Version 1.2 – California Specification 01350:
Standard Method For the Testing and Evaluation of Volatile Organic Chemical Emissions From Indoor Sources Using Environmental Chambers

ISO 16000-3:2022 Indoor air – Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air – Active sampling method

ISO 16000-6:2021 Indoor air – Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA[®] sorbent, thermal desorption and gas chromatography using MS/FID

ISO 16000-9:2024 Indoor air – Part 9: Determination of the emission of volatile organic compounds from building products and furnishing – Emission test chamber method

ASTM D5116-25 Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/ Products

Conditions

The sample was conditioned for 10 days in the same test chamber where the analysis was performed during 96h. The same conditions during conditioning and test were kept and are described in table 1.

Table 1. Chamber conditions during the 10 days conditioning and 96-h test period

Parameter	Symbol	Units	Value
Product exposed area	A_c	m^2	0.69
Chamber Volume	V_c	m^3	1.00
Loading factor	L_c	m^2/m^3	0.69
Air change rate	a_c	h^{-1}	1.00
Inlet flow rate	Q	m^3/h	1.00
Area specific flow rate	q_A	m/h	1.45
Temperature	T	$^{\circ}C$	23 ± 1
Relative humidity	RH	%	50 ± 5

VOC and aldehydes active sampling were performed in duplicate by pumping air through respective sorbent just before loading the chamber, then at 24h, 48h and 96h after initiating the chamber test (without counting the previous 10 days conditioning). Sampling conditions are represented in table 2.

Table 2. Sampling conditions

Sampling conditions	VOC	Aldehydes (C ₁ -C ₆)
Number of sampled tubes	2	2
Sorbent type	Tenax TA	DNPH
Sampling duration	54 min	100 min
Sampling air flow rate	75.5 ml/min	0.81 l/min
Sampled air volume	4.1 L	81 L

The chemical analysis was performed following internal test methods QMA 36.035.538 HKG and QMA 36.035.524HKG for the analysis of respectively aldehydes in DNPH cartridges by HPLC-UV and VOCs/TVOCs in Tenax tubes by TD-GC-MS. These internal tests methods are based on standards ISO 16000-3:2022 and ASTM D5116-25

Test Result

Table 3. 24-h and 48-h chamber concentrations and emission factors

Parameter	CAS no.	Chamber concentration ($\mu\text{g}/\text{m}^3$)		Emission factor ^{*1} ($\mu\text{g}/\text{m}^2\text{h}$)	
		24h	48h	24h	48h
Butylated Hydroxytoluene*	128-37-0	40	39	--	--
TVOC	--	n.d.	n.d.	--	--
Formaldehyde	50-00-00	n.d.	n.d.	--	--

Table 4. 96-h chamber concentrations and emission factors of all target VOCs and most abundant – Only detected compounds have been listed

Compound Name	CAS No.	Chamber concentration ($\mu\text{g}/\text{m}^3$)	Emission Factor ^{*1} ($\mu\text{g}/\text{m}^2\text{h}$)	Remark ^{*2}
Butylated Hydroxytoluene*	128-37-0	32	46.48	>C16
TVOC	--	n.d.	--	
Formaldehyde	50-00-0	n.d.	--	CREL / C / TAC
Acetaldehyde	75-07-0	n.d.	--	CREL / C / TAC

Table 5. Estimated concentrations for the different scenarios and evaluation of the requirements

Compound Name	CAS No.	Allowable concentration ^{*3} ($\mu\text{g}/\text{m}^3$)	Standard class room estimated concentration ^{*1} ($\mu\text{g}/\text{m}^3$)	Private office estimated concentration ^{*1} ($\mu\text{g}/\text{m}^3$)	Remark
Butylated Hydroxytoluene*	128-37-0	--	23.02	74.99	--
TVOC	--	--	n.d.	n.d.	--
Formaldehyde	50-00-0	9	n.d.	n.d.	Pass
Acetaldehyde	75-07-0	70	n.d.	n.d.	Pass

Abbreviation:

VOC = Volatile Organic Compound

TVOC = Total Volatile Organic Compound

C = chamber concentration, $\mu\text{g}/\text{m}^3$

A_c = exposed projected surface area, m^2

V_c = chamber volume

L_c = Loading factor

Q = inlet flow rate, m^3/h

q_A = area specific flow rate, m/h ($\text{m}^3/\text{m}^2\text{h}$)

n.d. = not detected ($< 1 \mu\text{g}/\text{m}^3$)

m^2 = square meter

m^3 = cubic meter

m^2/m^3 = square meter per cubic meter

h^{-1} = per hour

m^3/h = cubic meter per hour

L = liter

ml/min = milliliter per minute

L/min = Liter per minute

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

$\mu\text{g}/\text{m}^2\text{h}$ = micrograms per square meter per hour

-- = not applicable

Remark:

*1 **Data Analysis Procedure**

Emission Factors

Emission factors were calculated from chamber concentrations then by using the emission factors the estimated building concentrations were calculated.

The emission factor, EF_{Ai} ($\mu\text{g}/\text{m}^2\text{h}$), at a given time, t (h), after placing a test specimen in the chamber is calculated using Equation 1:

$$EF_{Ai} = (Q (C_{it} - C_{i0})) / A_C \qquad \text{Equation 1}$$

The inlet flow rate, Q (m^3/h), is the measured flow rate of air into the chamber. The chamber concentration, C_{it} ($\mu\text{g}/\text{m}^3$), is the concentration of a target VOC_i , formaldehyde and other carbonyl compounds measured at time t . The chamber background concentration, C_{i0} ($\mu\text{g}/\text{m}^3$), is the corresponding concentration measured with the chamber operating without a test specimen or with an appropriate substrate. The exposed projected surface area of the test specimen in the chamber, A_C (m^2), is determined from the measurements made at the time of specimen preparation.

Volume, length, mass or unit specific emission rates or emission factors, EF_V , EF_L or EF_M , EF_P ($\mu\text{g}/\text{m}^3\text{h}$, $\mu\text{g}/\text{mh}$, $\mu\text{g}/\text{kg}$ or $\mu\text{g}/\text{h}$ per unit), can be calculated using Equation 1 by substituting the appropriate parameter used to quantify the material specimen (i.e., volume in cubic meters, length in meters, mass in kilograms or number of products tested).

Estimated Building Concentrations

Building concentrations can be calculated on a case-by-case basis using input parameters for the amount of installed product, the size of the space and the air change rate (or air flow rate) that are specific to the architectural project under consideration. In order to evaluate and compare products for use in a wide range of building products, concentrations also can be calculated for selected building scenarios. Building concentrations are estimated based on the measured VOC emission factors, the amount of material to be installed in the building and flow rate of outside air used for ventilation. Steady state conditions with respect to emission rates and building ventilation shall be assumed in making the prediction. Additional assumptions are zero outdoor concentrations, perfect mixing within the building and no net losses of VOC from air due to other effects such as irreversible or net sorption on surfaces (i.e., net sink effects) and chemical reactions. The projected surface area of installed wall covering and the building parameters to be used in the calculation of estimated VOC concentrations are established for a school classroom and an office and have been described in table 6.

Table 6. The projected surface area of installed wall covering and the building parameters to be used in the calculation of estimated VOC concentrations

Scenario	Outdoor ventilation air (m^3/h)	Exposed wall covering surface area (m^2)	Area specific air flow rate (m/h)
Standard School Classroom	191	89.2	2.14
Private Office	20.7	11.1	1.86

The estimated building concentration, C_{Bi} ($\mu\text{g}/\text{m}^3$), of a target VOC_i is calculated using equation 2a or 2b. For products that have the area specific emission factor, EF_A ($\mu\text{g}/\text{m}^2\text{h}$), Equation 2a is used:

$$C_{Bi} = (EF_{Ai} \times A_B) / Q_B = EF_{Ai} / (Q_B / A_B) = EF_{Ai} / q_A \qquad \text{Equation 2a}$$

The area specific emission rate EF_A at 336 hours (14 days) total exposure time is divided by the area specific flow rate, q_A (m/h). The area specific flow rate, q_A , is calculated as the ratio of the flow rate of outside ventilation air, Q_B (m^3/h), to the exposed surface area of the installed material in the building, A_B (m^2).

For products that only have the unit specific emission factor, EF_P ($\mu\text{g}/\text{h}$ per unit), Equation 2b is used:

$$C_{Bi} = (EF_{Pi} \times N_B) / Q_B = EF_{Pi} / (Q_B / N_B) = EF_{Pi} / q_P \qquad \text{Equation 2b}$$

The unit specific emission rate EF_P at 336 hours (14 days) total exposure time is divided by the unit specific flow rate, q_P (m^3/h per unit). The unit specific flow rate, q_P , is calculated as the ratio of the flow rate of outside ventilation air, Q_B ($\text{m}^3 \text{h}^{-1}$), to the number of the installed products in the building, N_B .

Remark:

In some cases, it may be necessary to calculate the results using the volume, length or mass of a product to be installed in a building and the corresponding volume, length or mass specific emission rate.

- *2 CREL – Chronic Reference Exposure Levels: this substance has a CREL value.
Refer to <http://www.oehha.ca.gov/air/allrels.html>.

C – Safe Drinking Water and Toxic Enforcement Act of 1986: classified as known or probable human carcinogens and reproductive/ developmental toxins.

Refer to http://www.oehha.ca.gov/prop65/prop65_list/newlist.html.

TAC – Toxic Air Contaminants: classified as Hazardous Air Pollutants plus additional compounds.

Refer to <http://www.arb.ca.gov/toxics/id/taclist.htm>.

- *3 Refer to <http://www.oehha.ca.gov/air/allrels.html>. All maximum allowable concentrations are one-half the corresponding CREL adopted by Cal/EPA OEHHA with the exception of formaldehyde.

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Chain of Custody

TUV Rheinland Hong Kong Ltd
Member of TÜV Rheinland Group in Greater China
香港德國萊茵技術監護顧問股份有限公司
德國萊茵集團大中華區成員



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Page 1 of 3

VOC EMISSION TESTING APPLICATION FORM AND CHAIN OF CUSTODY
揮發性及有機化合物釋放測試申請表

Please fill out one form per sample and return it to us. Thanks.
請為每份測試樣品填寫一份申請表, 然後將填妥的申請表回傳到我司. 謝謝.

Internal use only / TÜV 萊茵內部使用
Order No: 158328852
Reviewed by (date):

Please ship sample to/ 請把樣品寄送到:

3/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, Hong Kong (Sample Reception)
香港荃灣半山街 10-16 號富華工業大廈 3 樓 (收辦部)

Please fill in by computer - send with sample, and per email/ 請使用電腦填寫-並連同樣品及透過電郵交回

Client/ 客戶	Report to be sent to/ 報告送到	Invoice to be sent to/ 發票送到	Copy of report to be sent to/ 報告副本送到
Company/ 公司	Richloom Fabrics	Applied Lab	Applied Lab
Contact person/ 聯絡人	Kevin Jones	Accounts Payable	Jennifer Friend
E-mail/ 電子郵件	kjones@richloomfabrics.com	ap@applied-textiles.com	jfriend@applied-lab.com
Address/ 地址	100 Bailey Plant Road	553 76 th St SW	553 76 th St SW
Postcode/town/ 郵編/ 鎮	Clinton, SC 29325	Byron Center, MI 49315	Byron Center, MI 49315
Country/ 國家	US	US	US
Telephone no./ 電話號碼	864-938-9117 x192	616-559-6100 x142	616-559-6100 x165
Fax no./ 傳真號碼			
Your reference/ 您的參考			

Test Method(s) ordered:	
1. AgBB/DIBt (full test, incl. aldehydes) <input type="checkbox"/>	8. LGA Tested Safety & Contamination:
Without aldehydes test after 28 days <input type="checkbox"/>	VOC/ 揮發性及有機化合物 <input type="checkbox"/>
AgBB/DIBt (only 7 days) <input type="checkbox"/>	Formaldehyde/ 甲醛 <input type="checkbox"/>
Without aldehydes after 7 days <input type="checkbox"/>	Odour/ 氣味 <input type="checkbox"/>
2. French mandatory VOC label (including 4 regulated CMR) <input type="checkbox"/>	9. Formaldehyde/ 甲醛:
3. CDPH Section 01350 <input checked="" type="checkbox"/>	EN 717-1 <input type="checkbox"/>
4. FloorScore <input type="checkbox"/>	ISO 16000-3 (DNPH) <input type="checkbox"/>
5. ANSI/BIFMA M7.1-2011 <input type="checkbox"/>	ASTM D6007 <input type="checkbox"/>
6. Indoor Advantage <input type="checkbox"/>	10. VOC emission/ 揮發性及有機化合物釋放
7. Indoor Advantage GOLD <input type="checkbox"/>	ISO 16000-6,9 <input type="checkbox"/>
	ASTM 5116 <input type="checkbox"/>

Further information – Please fill in only if necessary		
Type of Chamber: Mid-scale <input type="checkbox"/> Small-scale <input type="checkbox"/>	Length of testing: 24h <input type="checkbox"/> 72h <input type="checkbox"/> 168h <input type="checkbox"/> 336h <input type="checkbox"/> Other: _____	Reporting of results: Emission Factors only <input type="checkbox"/> Room concentrations modeling <input type="checkbox"/>

TÜV Rheinland Hong Kong Ltd 香港德國萊茵技術監護顧問股份有限公司 SAMPLE PICK-UP SERVICE HOTLINE: +862 2192-1900 EMAIL: samplepickup@hk.ohn.tuv.com	3, 4/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, Hong Kong 香港荃灣半山街 10-16 號富華工業大廈 3, 4 樓 TEL: +852 2192 1000 FAX: +852 2192 1003 www.tuv.com	Greater China Customer Service Hotline 大中華區客戶服務熱線: +86 400-8831300 / +86 800-9993668 (Mainland China / 中國內地) +852 2192-1022 (HK / 香港) +886 2 2528-7007 (TW / 台灣) Greater China Service Mailbox 大中華區服務郵箱: service-gc@tuv.com
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Chain of Custody

TUV Rheinland Hong Kong Ltd
Member of TÜV Rheinland Group in Greater China
香港德國萊茵技術監護顧問股份有限公司
德國萊茵集團大中華區成員



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Page 2 of 3


VOC EMISSION TESTING APPLICATION FORM AND CHAIN OF CUSTODY
揮發性及有機化合物釋放測試申請表

Please fill out one form per sample and return it to us. Thanks.
請為每份測試樣辦填寫一份申請表, 然後將填妥的申請表回傳到我司。謝謝。

Internal use only / TÜV 業內內部使用
Order No: 158328852
Reviewed by (date):

Other test/information: Please test the sample in a 1 m3 chamber, test to 168 hrs and calculate emissions at 336 hrs.			
Report format:	PDF <input checked="" type="checkbox"/>	Printed <input type="checkbox"/>	Printed & PDF <input type="checkbox"/>

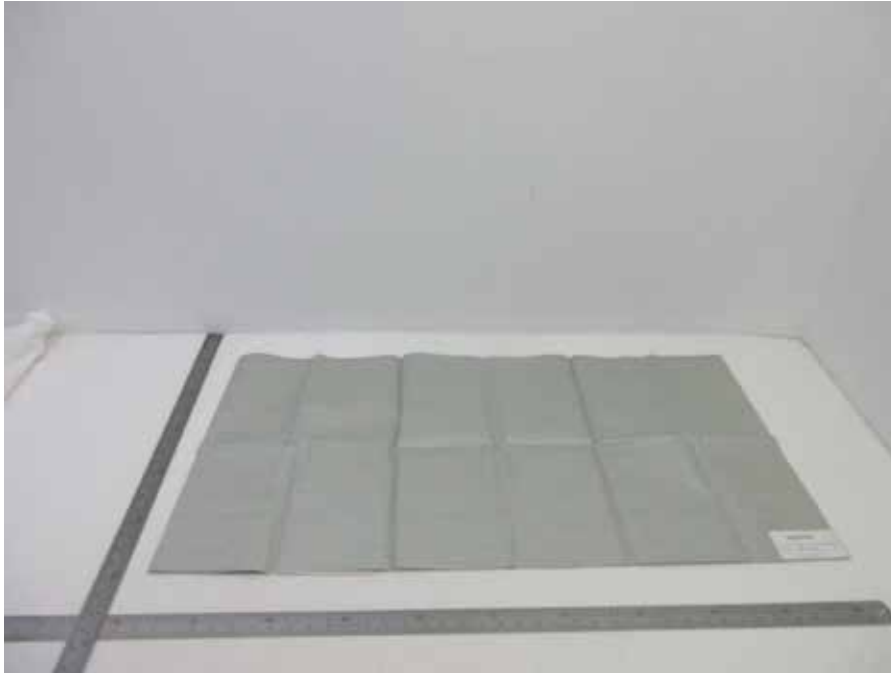
Product Commercial Name:	Type II IMO Wallcovering	Product Commercial Part No.:	n/a
Product Dimensions: (height x width x thickness)	30 Y X 52-54" X .045 mm	Product item No.:	n/a
Manufacturer Sample Tracking ID:	492753150929	Date Manufactured:	12/09/2024
Product Category and Use:	Wall covering only	Sample Construction Material:	FB Vinyl
Plant Name & Location:	Plant Name: Fidelity Location: Paterson, NJ	Collection Location in Plant:	S&R
Date and Time of collection:	12/09/24 11:00	Sample Collected by:	Yossi Friedman
Storage of Sample after Sampling:	ATC	Packing Material:	ATC
Packed and Shipped by:	Yossi Friedman	Shipping Date:	04/06/26
Carrier:	FedEx	Airbill Number:	471889970630

FOR LABORATORY USE ONLY:			
Received by:	Warren Chan	Received date:	2026-04-20
Conditions of package:	Fine	Conditions of Sample:	Fine
Received by:	Warren Chan	Signature:	
Company:	TÜV Rheinland Hong Kong Ltd	Laboratory:	Chemical laboratory Hong Kong
Sample Number:	A004256854	Report Number:	158328852a

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Sample Photo



- END -

General Terms and Conditions of Business of TÜV Rheinland in Greater China

1. **Scope**
 - 1.1 These General Terms and Conditions of Business of TÜV Rheinland in Greater China ("GTCS") is between the client and TÜV Rheinland in Greater China. The client hereby agrees to accept the conditions of business of TÜV Rheinland in Greater China as applicable as the case may be ("TÜV Rheinland"). The Greater China hereof refers to the regions within the territories of China. The client hereby includes:
 - (1) a natural person capable to form legally binding contracts under the applicable laws who concludes the contract of a daily use;
 - (2) the incorporated or unincorporated entity duly organized, validly existing and capable to form legally binding contracts under the applicable law;
 - (3) The following terms and conditions of the client apply and shall apply and shall hereby be expressly excluded. No standard contractual terms and conditions of the client shall form part of the contract even if TÜV Rheinland does not explicitly object to them.
 - (4) In the contract of ongoing business with the client, this GTCS shall also apply to future contracts with the client without TÜV Rheinland having to refer to them separately in each individual case.
 - 1.2 Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.
 2. **Coming into effect and duration of contracts**
 - 2.1 The contract shall come into effect for the agreed terms upon the quotation letter of TÜV Rheinland or a separate contractual document being signed by both contracting parties, or upon the request by the client being carried out by TÜV Rheinland. If the client instructs TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland is, in its sole discretion, entitled to accept the order by giving written notice of such acceptance (including notice sent via electronic means) or by performing the requested services.
 - 2.2 The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term agreed in the contract.
 - 2.3 If the contract provides for an extension of the contract term, the contract term will be extended by the term provided for in the contract unless terminated in writing by either party with a three-month notice prior to the end of the contractual term.
 3. **Scope of services**
 - 3.1 The scope and type of the services to be provided by TÜV Rheinland shall be specified in the contractually agreed service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland is provided, the contractually agreed service scope of TÜV Rheinland shall be deemed to be the scope of services provided by TÜV Rheinland as specified in the contract. Unless otherwise agreed, services beyond the scope of the service description (e.g. checking the correctness and functionality of parts, products, processes, installation, organization) not listed in the service description, as well as the intended use and application of such) are not owed. In particular, no responsibility is assumed for the design, selection of materials, construction or intended use of an examined part, product, process or plant, unless this is expressly stated in the order.
 - 3.2 The agreed services shall be performed in compliance with the regulations in force at the time the contract is entered into.
 - 3.3 TÜV Rheinland is entitled to determine, in its sole discretion, the method and nature of the assessment unless otherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.
 - 3.4 On execution of the work there shall be no simultaneous assumption of any guarantee of the correctness (proper quality) and working order of either tested or examined parts nor of the installation as a whole and its upstream and/or downstream processes, organizations, use and application in accordance with the regulations, nor of the system in which the installation is based. In particular, TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, nor for their use and application in accordance with regulatory with the client. His questions are expressly covered by the contract.
 - 3.5 In the case of inspection work, TÜV Rheinland shall not be responsible for the accuracy or checking of the safety requirements or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.
 - 3.6 If mandatory legal regulations and standards or official requirements for the agreed service scope change after conclusion of the contract, with a written notice to the client, TÜV Rheinland shall be entitled to additional remuneration resulting additions under such conditions.
 - 3.7 The services to be provided by TÜV Rheinland under the contract are agreed exclusively with the client. A contract of third parties with the services of TÜV Rheinland, as well as making available of and justifying compliance with the work results, test reports, test results, expert reports, etc.) is not part of the agreed services. This also applies if the client passes on work results - in full or in extracts - to third parties in accordance with clause 11.4.
 - 3.8 The client understands and agrees that the client, in its sole discretion, may terminate the contract, the client may not sign one or more contracts/agreements with a more third party(ies) and establish legal relationships with that/those third party(ies) according to such contract/agreements, and assuming responsibility for the consequences of such contract/agreements. If TÜV Rheinland engages and/or applies any third testing and certification bodies to provide testing and/or certification services on behalf of the client, TÜV Rheinland acts as an agent of the client in relation of such relevant services; therefore, TÜV Rheinland will merely bears the corresponding legal liability according to this contract and the direct services actually to be provided by our company in the service process. Besides, in order to achieve the purpose of the contract, the client hereby agrees that TÜV Rheinland can also sub-entrust to a third party to provide agency services, but TÜV Rheinland shall not bear any responsibility and/or risk for any services to be provided by any third parties (including agency services) to the client. If the client instructs TÜV Rheinland to conduct any annual review/surveillance of the relevant testing and/or certification service results and pay additional fees in accordance with the relevant laws and regulations or the testing and/or certification results, such fees are not within the scope of the contract price, the client shall timely perform the obligation of such annual review/surveillance and pay the corresponding fees. If the client fails to perform such obligations of the annual review/surveillance or fees payment, it may lead to adverse consequences such as failure/ suspension/cancellation/invalidity of testing and/or certification results, which shall not be borneable by TÜV Rheinland.
 - 3.9 For the service content agreed in the contract, the client is obliged to deliver relevant test samples, data, etc. to any overseas laboratory or other places or sites to be designated by the client. TÜV Rheinland shall not take any responsibilities or risks for any problems during such delivery duration process (including but not limited to any loss or damages of the samples and/or the materials, etc.). Besides, the relevant freight fees shall be borne by the client.
 4. **Performance periods/dates**
 - 4.1 The contractually agreed periods/dates of performance are based on estimates of the work involved which are prepared in line with the details provided by the client. They shall only be binding if being confirmed as binding by TÜV Rheinland in writing.
 - 4.2 In the event of performance periods of performance not caused by TÜV Rheinland, the client has submitted all required documents to TÜV Rheinland.
 - 4.3 Articles 5.1 and 5.2 also apply, even without express approval by the client, to all extensions of agreed periods/dates of performance not caused by TÜV Rheinland.
 - 4.4 TÜV Rheinland is not responsible for a delay in performance, in particular if the client has not fulfilled his duties to cooperate in accordance with clause 6.1 or if he has done so in time only in particular, has not provided TÜV Rheinland with all documents and information required for the performance of the service as specified in the contract.
 - 4.5 If the performance of TÜV Rheinland is delayed due to unforeseeable circumstances such as force majeure, strikes, business interruptions, government regulations, transport obstacles, etc., TÜV Rheinland is entitled to postpone performance for a reasonable period of time which corresponds at least to the duration of the hindrance plus any time period which may be required to resolve the impediment.
 - 4.6 If the client is obliged to comply with the legal, officially prescribed and/or by the accreditor prescribed deadlines, it is the client's responsibility to agree on performance dates with TÜV Rheinland, which enable the client to comply with the legal and/or officially prescribed deadlines. TÜV Rheinland assumes no responsibility in this respect unless TÜV Rheinland expressly agreed in writing specifically stating that ensuring the deadlines is the contractual obligation of TÜV Rheinland.
 5. **The client's obligation to cooperate**
 - 5.1 The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and at no cost to TÜV Rheinland.
 - 5.2 Design documents, supplies, auxiliary staff, etc. necessary for performance of the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client represents and warrants that:
 - a) it has required statutory qualifications;
 - b) the product, service or management system to be certified complies with applicable laws and regulations; and
 - c) it doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China.
 - 5.3 If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contract without prior notice; and ii) withdraw the issued testing/report/certificates if any.
 - 5.4 The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TÜV Rheinland shall be entitled to charge extra fees for such additional expenses.
 6. **Pricing**
 - 6.1 If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on the contract price. If no price is agreed in writing, invoicing shall be made in accordance with the price list of TÜV Rheinland valid at the time of performance.
 - 6.2 Unless otherwise agreed, work shall be invoiced according to the progress of the work.
 - 6.3 If the executed or ordered work exceeds the agreed price by more than 10% of the contract or the agreed fixed price exceeds €2,000.00 or equivalent value in local currency, TÜV Rheinland may demand payments on account or in instalments.
 7. **Payment terms**
 - 7.1 All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on receipt of the invoice. No discounts and rebates shall be granted.
 - 7.2 Payments shall be made to the bank account of TÜV Rheinland as indicated on the invoice, stating the invoice and client numbers.
 - 7.3 In cases of default of payment, TÜV Rheinland shall be entitled to claim default interest at the applicable short term loan interest rate publicly announced by a reputable commercial bank in the country where TÜV Rheinland is located. At the same time, TÜV Rheinland reserves the right to claim further damages.
 - 7.4 Should the client default in payment of the invoice despite being granted a reasonable grace period, TÜV Rheinland is entitled to cancel the contract, without notice, and/or certificate, claim damages for non-performance and refuse to continue performance of the contract.
 - 8.5 The provisions set forth in article 8.4 shall also apply in cases involving returned cheques, cessation of payment, commencement of insolvency proceedings against the client's assets or other circumstances which lead to the commencement of insolvency proceedings has been dismissed due to lack of assets.
 - 8.6 Objections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of receipt of the invoice.
 - 8.7 TÜV Rheinland shall be entitled to demand appropriate advance payments.
 - 8.8 TÜV Rheinland shall be entitled to raise its fees at the beginning of a month if overheads and/or purchased materials increase. In this case, TÜV Rheinland shall not be liable for the increase of the rise in fees. This notification shall be issued one month prior to the date on which the rise in fees shall come into effect (period of notice of changes in fees). If the rise in fees remains under 5% per year, the client shall not have the right to terminate the contract. If the rise in fees exceeds 5% per contractual year, the client shall be entitled to terminate the contract by the end of the period of notice of changes in fees. If the contract is not terminated, the changed fees shall be deemed to have been agreed upon by the client by the time of expiry of the notice period.
 - 8.9 Only legally established and undisputed claims may be offset against claims by TÜV Rheinland.
 - 8.10 TÜV Rheinland shall have the right at all times to set off any amount due or payable by the client, including but not limited to set-off against any fees due to the client under any contracts, agreement and/or orders/quotations reached with TÜV Rheinland.
9. **Acceptance of work**
 - 9.1 Any part of the work result ordered which is complete in itself may be presented by TÜV Rheinland for acceptance as an instalment. The client shall be obliged to accept it immediately.
 - 9.2 If acceptance is required or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client releases acceptance within this period stating at least a fundamental breach of contract by TÜV Rheinland. The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV Rheinland.
 - 9.3 If acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the completion of the work shall take its place.
 - 9.4 During the follow-up audit stage, if the client was unable to make use of the time windows provided for within the scope of a certification procedure for auditing/performance by TÜV Rheinland and the certificate is therefore to be withdrawn (e.g. performance of surveillance audits), or if the client cancels or postpones a confirmed audit date within two (2) weeks before the agreed date, TÜV Rheinland is entitled to immediately charge a lump sum of 10% of the order amount as compensation for expenses. The client reserves the right to prove that the TÜV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above lump sum.
 - 9.5 If the client is in default under the contract, TÜV Rheinland is entitled to demand a lump sum of 10% of the order amount as compensation for expenses if the service is not called within one year after the order has been placed. The client reserves the right to prove that the TÜV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above mentioned lump sum.
10. **Confidentiality**
 - 10.1 For the purpose of these terms and conditions, "confidential information" means all know-how, trade secrets, documents, images, drawings, expertise, information, data, test results, reports, samples, test certificates, drawings and financial information, customer and supplier information, and marketing techniques and materials, tangible or intangible, that are supplied, transferred or otherwise disclosed by one Party (the "disclosing party") to the other Party (the "receiving party"), in writing or orally, in print or in electronic form, or by any other means, whether or not the data and know-how disclosed, compiled or otherwise obtained by TÜV Rheinland (non-personal and not proprietary to the client) within the scope of the provision of services by TÜV Rheinland. TÜV Rheinland is entitled to use, further develop, disseminate or transfer the data and information with the provision of services for the purposes of developing new services, improving services and analysing the provision of services.
 - 10.2 The disclosing party shall mark all confidential information disclosed in written form as confidential before passing it into the receiving party. The same applies to confidential information transmitted by e-mail. If confidential information is disclosed orally, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidentiality nature of the information within five working days of oral disclosure. Where the disclosing party fails to do so within the stipulated period, the receiving party shall not take any confidentiality obligations towards such information. The client is prohibited from using any third party platform and/or system (e.g., Wechat, etc., Unauthorized by TÜV Rheinland) to send any confidential information to TÜV Rheinland. Instead, the client shall send any confidential information to company email of TÜV Rheinland employees through its corporate email. The client shall be liable for any losses or damages due to any theft or leakages or caused by the adoption of any unauthorized confidential information sharing methods mentioned above, TÜV Rheinland shall be waived for any compensation liabilities.
 - 10.3 All confidential information which the disclosing party transmits or otherwise discloses to the receiving party and which is created during performance of work by TÜV Rheinland:
 - a) may only be used by the receiving party for the purposes of performing the contract, unless expressly otherwise agreed in writing by the disclosing party;
 - b) may not be copied, distributed, published or otherwise disclosed by the receiving party, unless this is necessary for fulfilling the purpose of the contract; TÜV Rheinland is not required to pass on confidential information, inspection reports or documentation to the government authorities, judicial court, accreditation bodies or third parties (including but not limited to the relevant client and its suppliers, subcontractors, contractors, purchasers and manufacturers/whole equipment manufacturers, test standards or test requirements providers of the client's test products and/or certified products, etc.) that are involved in the performance of the contract;
 - c) must be treated by the receiving party with the same level of confidentiality as the receiving party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which is reasonable for the disclosing party;
 - 10.4 The receiving party may disclose any confidential information received from the disclosing party only to those of its employees who need this information to perform the services required for the contract. The receiving party shall ensure that these employees to observe the same level of secrecy as set forth in this confidentiality clause.
 - 10.5 Information for which the receiving party can furnish proof that:
 - a) it was generally known at the time of disclosure or use, or became general knowledge without violation of this confidentiality clause by the receiving party;
 - b) it was disclosed to the receiving party by a third party entitled to disclose this information; or
 - c) the receiving party already possessed this information prior to disclosure by the disclosing party; or
 - d) the receiving party developed it itself, irrespective of disclosure by the disclosing party, shall not be deemed to constitute "confidential information" as defined in this confidentiality clause.
 - 10.6 All confidential information shall remain the property of the disclosing party. The receiving party shall immediately (i) return all confidential information, test reports, samples, copies, etc. to the disclosing party, and/or (ii) on request by the disclosing party, to destroy all confidential information, including all copies, and confirm the destruction of this confidential information to the disclosing party in writing, at any time if so requested by the disclosing party. At the latest and without special request after termination or expiry of the contract. This does not extend to include reports and certificates prepared for the client solely for the purpose of fulfilling the obligations under the contract, which shall remain with the client. However, TÜV Rheinland is entitled to make file copies of such reports, certificates and confidential information that forms the basis for preparing these reports and certificates in order to evidence the correctness of its results and for general documentation purposes required by laws, regulations and the requirements of working procedures of TÜV Rheinland.
 - 10.7 From the start of the contract and for a period of three years after termination or expiry of the contract, the receiving party shall maintain strict secrecy of all confidential information and shall not disclose this information to any third parties or use it for its benefit.
11. **Copyrights and rights of use, publications**
 - 11.1 TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test reports/results, results calculations, presentations etc. prepared by TÜV Rheinland, unless otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TÜV Rheinland is free to grant others the right to use the work results for individual or all types of use ("right of use").
 - 11.2 The client receives a simple, unlimited, non-transferable, non-sublicensable right of use to the contents of the work results produced within the scope of the contract, unless otherwise agreed by the parties in a separate agreement. The client may only use such results, test reports, test reports/results, results calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose.
 - 11.3 The transfer of right of use of the generated work results regulated in clause 11.2 of the GTCS is subject to full payment of the remuneration agreed in favour of TÜV Rheinland.
 - 11.4 The client may use work results only complete and unshortened. The client may only pass on the work results in full unless TÜV Rheinland has given its prior written consent to the partial passing on of work results.
 - 11.5 Any publication or duplication of the work results for advertising purposes or any further use of the work results beyond the scope regulated in clause 11.2, and any quotation of the introduction of TÜV Rheinland need the prior written approval of TÜV Rheinland in each individual case. Besides, the client ensures that the aforesaid use shall comply with relevant applicable laws, regulations and relevant rules (including but not limited to specific applicable testing and certification rules, etc.).
 - 11.6 TÜV Rheinland may revoke a once given approval according to clause 11.5 at any time without stating reasons. In this case, the client is obliged to stop the transfer of the work results immediately at its own expense and, as far as possible, to withdraw publications.
 - 11.7 The consent of TÜV Rheinland to publication or duplication of the work results does not entitle the client to use the corporate logo, corporate design or test/certification mark of TÜV Rheinland.
12. **Liability of TÜV Rheinland**
 - 12.1 Irrespective of the legal basis, to the fullest extent permitted by applicable law, in the event of a breach of contractual obligations or tort, the liability of TÜV Rheinland for all damages, losses and reimbursement of expenses caused by TÜV Rheinland, its legal representatives and/or employees shall be limited to: (i) in the case of a contract with a fixed overall fee, three times the overall fee for the entire contract; (ii) in the case of a contract for annually recurring services, the agreed annual fee; (iii) in the case of a contract expressly charging a time and material basis, a maximum of 20,000 Euro or equivalent amount in local currency; and (iv) in the case of a framework agreement that provides for the possibility of placing individual orders, three times of the fee for the individual order and/or which the damages or losses have occurred. Notwithstanding the above, in the event that the total and accumulated liability calculated according to the foregoing provisions exceeds 2.5 Million Euro or equivalent amount in local currency, the total and accumulated liability of TÜV Rheinland shall be limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.
 - 12.2 The limitation of liability according to article 12.1 above shall not apply to damages and/or losses that are caused by malicious intent or gross negligence on the part of TÜV Rheinland or its employees. Such limitation shall not apply to damages for a party's physical injury or life insurance claims.
 - 12.3 In cases involving a fundamental breach of contract, TÜV Rheinland will be liable even where minor negligence is involved. For this purpose, a "fundamental breach" is treated as a fundamental contractual obligation, the performance of which permits the dual performance of the contract. Any claim for damages for a fundamental breach of contract shall be limited to the amount of damages reasonably foreseen as a possible consequence of such breach of contract at the time of the breach of contract, unless any other amount is specified in the circumstances described in 12.2 above.
 - 12.4 TÜV Rheinland shall not be liable for the acts of the personnel made available by the client to support TÜV Rheinland in the performance of its services under the contract, unless such personnel made available is regarded as vicarious agent of TÜV Rheinland. If TÜV Rheinland is not liable for the acts of the personnel made available by the client, the foregoing provisions of the client shall indemnify TÜV Rheinland against any claims made by third parties arising from or in connection with such personnel's acts.
 - 12.5 Unless otherwise contractually agreed in writing, TÜV Rheinland shall only be liable under the contract to the client.
 - 12.6 The limitation periods for claims for damages shall be based on statutory provisions.
 - 12.7 None of the provisions of this article 12 changes the burden of proof to the disadvantage of the client.
13. **Export control**
 - 13.1 When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China for payment, commercial or other reasons, the client must comply with the applicable regulations of national and international export control law.
 - 13.2 The performance of a contract with the client is subject to the proviso that there are no obstacles to performance due to national or international foreign trade legislations or embargoes and/or sanctions. In the event of a violation, TÜV Rheinland shall be entitled to terminate the contract with immediate effect and the client shall compensate for the losses incurred thereto by TÜV Rheinland.
14. **Data protection notice**

The client understands and agrees that TÜV Rheinland processes personal data (including but not limited to personal information) of the client and its related parties (including but not limited to the supplier of the client) for the purpose of fulfilling this contract. The client confirms that it has obtained the prior consent of the data subject, which entitles TÜV Rheinland to access, use, or process the personal data of the client collected or processed by itself and transferred to TÜV Rheinland. For certain services, we may also process sensitive personal data. TÜV Rheinland will use and process the data in accordance with the relevant legal basis. If any personal data has to be disclosed or transferred to any third party or to any overseas party outside of the district in which the personal data was collected, the client also confirms that it has obtained the prior consent of the data subject. TÜV Rheinland will carry out cross-border data transmission and protect the data in compliance with the privacy and personal data security related laws and regulations in China and the local country. TÜV Rheinland will take measures to avoid any leakage, abuse, manipulation, damage or unauthorized access of personal data. The personal data will be deleted immediately as soon as a corresponding certificate or declaration of data subjects may exercise the following rights: right of information, right of decision, right of rectification, right of deletion, right of processing limitation, right of objection, right of data transferability. In addition, persons concerned by the data processing have the right to revoke their consent at any time with effect for the future, as well as the right to file a complaint with the competent data protection supervisory authority. For further details on the processing of personal data by TÜV Rheinland as the person responsible or contractor, please refer to the respective data protection information. You can contact the Group Data Protection Officer of TÜV Rheinland by e-mail at dataprotektion@tuv.com or by post at the following address: TÜV Rheinland AG, c/o Group Data Protection Officer, Am Grauen Stein, 51105 Cologne, Germany.
15. **Retention of test material and documentation**
 - 15.1 The test samples submitted by the client to TÜV Rheinland for testing will be scrapped following testing or will be retained to the client at the client's expense. The only exceptions are test samples which are placed in storage on the basis of statutory regulations or of another agreement with the client.
 - 15.2 Copies apply if the test samples are stored at the premises of TÜV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation.
 - 15.3 If reference samples or documentations are given to the client to be placed in storage at their premises, the client must ensure that the reference samples and documentations are kept safe. Upon request promptly and free of charge, if the client, in response to such a request, is incapable of making available the reference samples and/or documentation, any liability claims for material and immaterial damage arising from the non-availability of the reference samples and/or documentations by the client against TÜV Rheinland shall be voided.
 - 15.4 The retention period for the documentation shall be 10 (ten) years after the expiry of the test mark certificate, unless otherwise applicable legal requirements for EU/EEG certificates of conformity and GS mark certificates.
 - 15.5 The costs of the handover and dispatch of the test samples for storage on the client's premises are borne by the client. The client is liable for the transportation of the test reference samples from the laboratories or warehouses of TÜV Rheinland only in case of gross negligence.
16. **Termination of the contract**
 - 16.1 Notwithstanding clause 3.3 of the GTCS, TÜV Rheinland and the client are entitled to terminate the contract in its entirety or, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of each other, if the remaining services exceed six (6) months' notice to the end of the contractually agreed term. The notice period shall be shortened to six (6) weeks in case TÜV Rheinland is prevented from performing the services due to a loss or a suspension of accreditation or notification.
 - 16.2 For good causes, TÜV Rheinland may consider giving a written notice to the client to terminate the contract without bearing any liabilities and the client shall pay the relevant service fees for the services provided by TÜV Rheinland up to the termination date of the contract. The aforesaid good causes includes but not limited to the following:
 - a) the client does not immediately notify TÜV Rheinland of changes in the conditions within the company website or by other means;
 - b) the client misuses the certificate or certification mark or uses in violation of the contract;
 - c) in the event of several consecutive delays in payment (at least three times);
 - d) an substantial impairment of the client's financial situation occurs and as a result the payment claims of TÜV Rheinland under the contract are considerably endangered and TÜV Rheinland cannot reasonably be expected to continue the contractual relationship;
 - e) an event beyond reasonable control of the client occurs and as a result of the event, government interference, sanctions, loss of accreditation or notification, or other;
 - f) if TÜV Rheinland, for reasons beyond its control, is temporarily or finally not able or entitled to perform the services under the contract;
 - g) if the country/region involved in the whole contract or the specific service project in the contract does not ensure the necessary conditions for the accreditation or notification and TÜV Rheinland believes that there is a risk or some risks beyond its control to continue to perform the contract.
 - 16.3 In the event of termination with written notice by TÜV Rheinland for good cause, TÜV Rheinland is entitled to a lump-sum claim for damages against the client if the conditions of a claim for damages exist. In this case, the client shall owe 15% of the remuneration to be paid until the end of the contract term as lump-sum compensation. The client reserves the right to prove that there is no damage or a considerably lower damage. TÜV Rheinland is not liable for a considerably higher damage in individual cases.
 - 16.4 TÜV Rheinland is entitled to terminate the contract with written notice if the client has not been able to make use of the time windows for auditing/service provision provided by TÜV Rheinland within the scope of a certification procedure and the certificate therefore has to be withdrawn (for example during the performance of monitoring audits). Clause 16.3 applies accordingly.
17. **Force Majeure**
 - 17.1 "Force Majeure" means the occurrence of an event or circumstance that prevents or impedes a Party from performing one or more of its contractual obligations under the contract, if and to the extent that that Party proves: (a) that such impediment is beyond its reasonable control; and (b) that it could not reasonably have avoided or overcome the event or circumstance; and (c) that the effects of the impediment could not reasonably have been avoided or overcome by the affected Party.
 - 17.2 In the absence of proof to the contrary, the following events affecting a Party shall be presumed to fulfil the conditions (a) and (b) under paragraph 1 of this clause: (i) war (whether declared or not), hostilities, invasion, act of foreign enemies, extensive military mobilization; (ii) civil war, riot, rebellion and revolution, military or usurped power, insurrection, act of terrorism, sabotage, piracy, (iii) currency and trade restrictions, embargo, sanction; (iv) act of authority whether lawful or unlawful, compliance with any law or governmental order, expropriation, seizure of works, requisition, nationalization; (v) plague, epidemic, natural disaster or extreme natural event; (vi) explosion, fire, destruction of equipment, prolonged break-down of transport, telecommunication, information system or energy; (vii) general public disturbance such as boycott, strike and lock-out, go-slow, occupation of factories and premises.
 - 17.3 The Party successfully invoking this Clause is relieved from its duty to perform its obligations under the contract and from any liability in damages or from any other contractual remedy for breach of contract, from the time at which the impediment causes inability to perform, provided that the notice thereof is given without delay. If notice thereof is not given without delay, the relief is effected from the time at which notice thereof reaches the other Party. Where the effect of the impediment or event invoked is temporary, the above consequences shall apply only so long as the impediment involved impedes performance of the contract by the affected Party. Where the duration of the impediment has the effect of substantially depriving the contracting Parties of all that they were reasonably entitled to expect under the contract, either Party has the right to terminate the contract by notification within 120 days of the termination of the impediment. If the duration of the impediment exceeds 120 days, the contract may be terminated by either Party if the duration of the impediment exceeds 120 days.
18. **Hardship**
 - 18.1 The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the contract.
 - 18.2 Notwithstanding paragraph 1 of this Clause, where a Party proves that:
 - (a) the continued performance of its contractual duties has become excessively onerous due to an event beyond its reasonable control which it could not reasonably have been expected to have taken into account at the time of the conclusion of the contract; and that
 - (b) it could not reasonably have avoided or overcome the event or its consequences, the Parties are bound, within a reasonable time of the invocation of this Clause, to negotiate alternative contractual terms which reasonably allow to overcome the consequences of the event.
 - 18.3 Where Clause 18.2 applies, but where the Parties have been unable to agree alternative contractual terms as provided in that paragraph, the Party invoking this Clause is entitled to terminate the contract, but cannot request adaptation by the judge or arbitrator without the agreement of the other Party.
19. **Partial invalidity, written form, place of jurisdiction and dispute resolution**
 - 19.1 All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 17.1.
 - 19.2 Should one or several of the provisions under the contract and/or these terms and conditions be or become ineffective, the contracting parties shall replace the invalid provision with a legally valid provision that comes closest to the content of the invalid provision in legal and commercial terms.
 - 19.3 The contract, the governing law and the place of jurisdiction of the contract and these terms and conditions shall be chosen following the rules as below:
 - a) If TÜV Rheinland in question is legally registered and existing in the People's Republic of China, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China.
 - b) If TÜV Rheinland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Taiwan.
 - c) If TÜV Rheinland in question is legally registered and existing in Hong Kong, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Hong Kong.
 - 19.4 Any dispute in connection with the contract and these terms and conditions or the execution thereof shall be settled friendly through negotiation.
 - 19.5 Unless otherwise agreed in writing in the contract, if no settlement or no agreement in respect of the extension of the negotiation period can be reached within two months of the arising of the dispute, the dispute shall be submitted to arbitration.
 - 19.6 In the case of TÜV Rheinland in question being legally registered and existing in the People's Republic of China, to China International Economic and Trade Arbitration Commission (CIETAC) in Beijing, China. Unless otherwise agreed in writing in the contract, the arbitration shall take place in Beijing, Shanghai, Shenzhen or Chongqing as appropriately chosen by the claiming party.
 - 19.7 In the case of TÜV Rheinland in question being legally registered and existing in Taiwan, to the Chinese Arbitration Association (Taipei) to be arbitrated in accordance with its then current Rules of Arbitration. The arbitration shall take place in Taipei.
 - 19.8 In the case of TÜV Rheinland in question being legally registered and existing in Hong Kong, to Hong Kong International Arbitration Centre (HKIAC) to be settled by arbitration under the HKIAC Administered Arbitration Rules in force when the Notice of Arbitration is submitted in accordance with these rules. The arbitration shall take place in Hong Kong.
- 19.9 The decision of the arbitration shall be final and binding on both parties. The arbitration fee shall be borne by the losing party.



U. S. Department of Homeland Security United States Coast Guard Certificate of Approval

Coast Guard Approval Number: 164.112/191/0

Expires: 09 February 2027

INTERIOR FINISH (IMO)

Richloom Fabrics Group
261 5th Ave, 12th Floor
New York, NY 10016

Type II Fabric Backed Vinyl Wallcovering is approved as meeting Parts 2 and 5 of Annex 1 of the 2010 IMO FTP Code.

Identifying Data: Part 5 Southwest Research Institute (SwRI) Project No. 01.26262.01.105c dated December 21, 2020 and SwRI Project No. 01.26262.01.105d dated December 21, 2020; Follow-up Program - SwRI Project No. 01.25000.02.233

Test Specimen:

Vinyl Color: 10 white vinyl and 10 black vinyl
Ink Color: Soft Gold and Dark Grey
Thickness: 0.64 mm
Substrate: Steel

Deemed to meet Part 2 of Annex 1 by complying with Paragraph 2.2 of Annex 2 of the 2010 IMO FTP Code. Deemed to be less than the maximum 45 MJ per square meter calorific content by complying with Paragraph 2.3 of Annex 2 of the 2010 IMO FTP Code. Deemed to be less than the maximum 45 MJ per square meter calorific content as thickness is less than 2 mm. To be applied with Roman Pro 732 adhesive; application rate not to exceed 200 ft²/gal. Approval valid only for products manufactured in Wayne, New Jersey.



1408/YY

The manufacturer is allowed to affix the Marks of Conformity as allowed by the "Agreement between the United States of America and the United Kingdom of Great Britain and Northern Ireland on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 14th, 2019, by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 18th, 2019, and by the "Agreement between the European Free Trade Association countries which are part of the European Economic Area and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 22nd, 2019. Item complies with requirements of UK/3.18(a) and MED/3.18(a).

*** End ***

THIS IS TO CERTIFY THAT the above named manufacturer has submitted to the undersigned satisfactory evidence that the item specified herein complies with the applicable laws and regulations as outlined on the reverse side of this Certificate, and approval is hereby given. This approval shall be in effect until the expiration date hereon unless sooner canceled or suspended by proper authority.

GIVEN UNDER MY HAND THIS 09th DAY OF
FEBRUARY 2022, AT WASHINGTON D.C.

B. A. BALDWIN
Chief, Lifesaving and Fire Safety Division
BY DIRECTION OF THE COMMANDANT



TERMS: The approval of the item described on the face of the Certificate has been based upon the submittal of satisfactory evidence that the item complies with the applicable provisions of the navigation and shipping laws and the applicable regulations in Title 33 and/or Title 46 of the Code of Federal Regulations. The approval is subject to any conditions noted on this Certificate and in the applicable laws and regulations governing the use of the item on vessels subject to Coast Guard inspection or on other vessels and boats.

Consideration will be given to an extension of this approval provided application is made 3 months prior to the expiration date of this Certificate.

The approval holder is responsible for making sure that the required inspections or tests of materials or devices covered by this approval are carried out during production as prescribed in the applicable regulations.

The approval of the item covered by this certificate is valid only so long as the item is manufactured in conformance with the details of the approved drawings, specifications, or other data referred to. No modification in the approved design, construction, or materials is to be adopted until the modification has been presented for consideration by the Commandant and confirmation received that the proposed alteration is acceptable.

NOTICE: Where a manufacturer of safety-at-sea equipment is offering for sale to the maritime industry, directly or indirectly, equipment represented to be approved, which fails to conform with either the design details or material specifications, or both, as approved by the Coast Guard, immediate action may be taken to invoke the various penalties and sanctions provided by law including prosecution under 46 U.S.C. 3318, which provides:

"A person that knowingly manufactures, sells, offers for sale, or possesses with intent to sell, any equipment subject to this part (*Part B. of Subtitle II of Title 46 U.S.C.*) and the equipment is so defective as to be insufficient to accomplish the purpose for which it is intended, shall be fined not more than \$10,000, imprisoned for not more than 5 years or both."



553 76th Street, Byron Center, MI 49315
 P: 616-559-6123 E: contact@applied-lab.com

Date of Issue: 5/14/2026
 Report Number: 26-001126
 Revision Number: 1
 Date Order Received: 04/14/2026

For the Account of Richloom Fabrics
 261 Fifth Avenue
 12th Floor
 New York, NY 10016

Client's Identification TYPE II IMO WALLCOVERING

CERTIFICATE OF TESTING

TEST PERFORMED Standard Method of Test for Surface Burning Characteristics of Building Materials ASTM E 84-21 Adhered to GRC Board

TEST RESULTS

	Flame Spread Index	Smoke Developed Index
TYPE II IMO WALLCOVERING	10	10
Reinforced Cement Board	0	0
Red Oak Flooring	100	100

Specimen Data

Time to Ignition	00.27 (min)
Maximum Flame Spread	02.46 (ft)
Time to Maximum Flame Spread	05.52 (min)

ACCEPTANCE CRITERIA

Class	Flame Spread Index	Smoke Development Rating
1 or A	0 - 25	0 - 450 maximum
2 or B	26 - 75	0 - 450 maximum
3 or C	76 - 200	0 - 450 maximum

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested is:

- Class 1 or A
- Class 2 or B
- Class 3 or C
- Unrated

DISCUSSION

This test is certified for ASTM E84 by the Southern Building Code Congress International (SBCCI) as a testing laboratory for Fire and Materials testing, Evaluation Report Number TL-9606 (Commercial Testing), and by the United States Department of Commerce, National Institute of Standards and Technology (NIST), through the National Voluntary Laboratory Accreditation Program (NVLAP) for compliance with criteria set forth in NIST Handbook 150:2001, all requirements of ISO/IEC 17025:2017, and relevant requirements of ISO 9002:1994.

This report is provided for the exclusive use of the client to whom it is addressed. It may be used in its entirety to gain product acceptance from daily-constituted authorities. The test results presented in this report apply only to the samples tested and are not necessarily indicative of apparent identical or similar materials. The client provided sample selection and identification. A sampling plan, if described in the referenced test procedure, was not necessarily followed. This report shall not be used under any circumstance in advertising to the

INTRODUCTION

This report is a presentation of results of a surface flammability test on a material submitted by the client identified above.

The test was conducted in accordance with the most recent version of the ASTM International fire-test-response standard E84 *Surface Burning Characteristics of Building Materials*, sometimes referred to as the Steiner tunnel test. ASTM E84 is an American National Standard (ANSI) and has been approved for use by agencies of the Department of Defense. The ASTM E84 test method is the technical equivalent of UL No. 723. The test is applicable to exposed interior surfaces such as walls and ceilings. The test is conducted with the specimen in the ceiling position with the surface to be evaluated face down toward the ignition source. Thus, specimens shall either be self-supporting by its own structural quality, held in place by added supports along the test surface, or secured from the back side.

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire-hazard or fire-risk assessment of the materials, products, or

This laboratory test is not intended to reflect fabric performance under actual conditions. The certification procedure merely measures the performance of samples as received under the predetermined and specific test conditions prescribed by the standard specified. This certificate applies only to the standards or processing identified and to the random sample(s) tested. The test results are representative of the qualities of the piece or lot only to the extent the sample tested is representative of the piece or lot. Our reports and letters are for the exclusive use of the customer to whom they are addressed and are not to be used under any circumstances without prior written approval. Samples will not be retained, unless specified by the customer. Retained samples will be kept a maximum time of one year unless a specific retention period is necessary. For information on statements of conformity, measurement uncertainty and decision rules, see the Terms and Conditions on our website www.applied-lab.com

Purpose

The purpose of the test is to provide only the comparative measurements of surface flame spread and smoke development of materials with that of select grade red oak and reinforced cement board under specific fire exposure conditions. The test exposes a nominal 24-foot long by 20-inch wide test specimen to a controlled airflow and flaming fire adjusted to spread the flame along the entire length of a red oak specimen in 5½ minutes. During the 10-minute test duration, flamespread over the specimen surface and density of the resulting smoke are measured and recorded. Test results are calculated relative to red oak, which has an arbitrary rating of 100, and reinforced cement board, Grade II, which has a rating of 0.

The test results are expressed as Flame Spread Index and Smoke Developed Index. The Flame Spread Index is defined in ASTM E 176 as a number or classification indicating a comparative measure derived from observations made during the progress of the boundary of a zone of flame under defined test conditions. The Smoke Developed Index, a term specific to ASTM E-84, is defined as a number or classification indicating a comparative measure derived from smoke obscuration data collected during the test for surface burning characteristics. There is not necessarily a relationship between the two measurements.

The method does not provide for measurement of heat transmission through the surface tested, the effect of aggravated flame spread behavior of an assembly resulting from the proximity of combustible walls and ceilings, or classifying a material as noncombustible solely by means of a Flame Spread Index.

The zero reference and other parameters critical to furnace operation are verified on the day of the test by conducting a 10-minute test using 1/4-inch reinforced cement board, Grade II. Periodic tests using NOFMA certified 23/32-inch select grade red oak flooring provide data for the 100 reference.

Test Sample

The test sample, selected by the client, is identified in the header section of this report. Three test panels, each measuring two feet wide by eight feet in length, were prepared by adhering the material to a 1/4-inch thick fiber-cement board complying with ASTM Specification C 1186 (Grade II) and passing ASTM Test Method E136, using Gardner-Gibson Dynamite 111 Heavy Duty Wallcovering Adhesive. The adhesive was applied with a roller to the back of the wallcovering, booked 5 to 7 minutes, the material placed onto the smooth side of the cement board, and smoothed with a brush and roller. This method of sample preparation is described in ASTM E2404-15a, *Standard Practice for Specimen Preparation and Mounting of Textile, Paper, or Polymeric (including Vinyl) Wall or Ceiling Coverings, Facings and Veneers to Assess Surface Burning Characteristics*, Section 8.2, Wall or Ceiling Coverings Intended to be Applied Directly to a Noncombustible Wall or Ceiling Surface. After dead-stacking overnight, the prepared panels were transferred to storage racks and conditioned to equilibrium in an atmosphere with the temperature maintained at 71 ± 2°F and the relative humidity at 50 ± 5 percent. For testing, the panels were placed end-to-end on the ledges of the tunnel furnace and tested with no auxiliary support mechanism.

Test Results

The test results, calculated on the basis of observed flame propagation and the integrated area under the recorded smoke density curve, are presented above. The Flame Spread Index obtained in E-84 is rounded to the nearest number divisible by five. Smoke Developed Indices are rounded to the nearest number divisible by five unless the Index is greater than 200. In that case, the Smoke Developed Index is rounded to the nearest 50 points. The flame spread and smoke development data are presented graphically in the computer printout at the end of this report.

Classification

The Flame Spread Index and Smoke Developed Index values obtained by ASTM E84 are frequently used by code officials and regulatory agencies in the acceptance of interior finish materials for various applications. The most widely accepted classification system is described in the National Fire Protection Association publication NFPA 101 *Life Safety Code*, where the Standard Classification System is as cited in the Acceptance Criteria section of this report

Class A, B and C correspond to Type I, II, and III respectively in other codes such as SBCCI, BOCA, and ICBO. They do not prelude a material being otherwise classified by the authority of jurisdiction.

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above. These test results were obtained from an outside source



Authorized Signature

Date Order Completed: 05/14/2026

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