

Report No.: 244452944c 001

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Client: Hangzhou Holux Lighting Technology Co.,Ltd
Contact Information: Room 407, No.47 XiangYuan Road, HangZhou,
310015 Zhejiang, P.R. China

**Identification/
Model No(s):** LED lamp
TP-06-18D2/D1
TP-12-36D2/D1
TP-15-50D2/D1
TP-15-70D2/D1

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2022-12-12

Testing Period: 2022-12-12 to 2022-12-20

Place of testing: Chemical laboratory Shanghai

Test Specification:

Test result:

Customer's requirement:

1. Screening Test by XRF Spectroscopy
According to RoHS (recast): Restriction of the Use of Certain Hazardous
Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and
its amendment.

PASS

For and on behalf of
TÜV Rheinland (Shanghai) Co., Ltd.



2023-01-13

Ryan Chen / Section 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.

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Material List:
 Item: LED lamp
 TP-06-18D2/D1
 TP-12-36D2/D1
 TP-15-50D2/D1
 TP-15-70D2/D1

Material No.	Material	Color	Location
M001	Plastic	white	refer to photo
M002	Plastic	transparent	refer to photo
M003	Metal	white	refer to photo
M004	Plastic	yellow	refer to photo
M005	Solder	silver	refer to photo
M006	Rubber	dark grey	refer to photo
M007	Rubber	white	refer to photo
M008	Plastic	transparent	refer to photo
M009	Plastic	white	refer to photo
M010	Rubber	transparent	refer to photo
M011	Metal	silver	refer to photo
M012	Rubber	blue	refer to photo
M013	Rubber	brown	refer to photo
M014	Plastic	white	refer to photo
M015	Metal	silver	refer to photo
M016	Rubber	black	refer to photo
M017	Rubber	black	refer to photo
M018	Magnet	black	refer to photo
M019	Plastic	black	refer to photo
M020	Plastic + adhesive	light yellow-green	refer to photo
M021	Metal	copper	refer to photo
M022	Electronic components	black	refer to photo
M023	Electronic components	black	refer to photo
M024	Electronic components	dark red	refer to photo
M025	Electronic components	dark cyan-blue	refer to photo
M026	Plastic	yellow-green	refer to photo

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M027	Plastic	dark orange-brown	refer to photo
M028	Plastic	black	refer to photo
M029	Metal	silver	refer to photo
M030	PCB board	white	refer to photo
M031	Electronic components	black	refer to photo
M032	Electronic components	black	refer to photo
M033	Electronic components	black	refer to photo
M034	Electronic components	silver	refer to photo
M035	Electronic components	black	refer to photo
M036	Solder	silver	refer to photo

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1.Screening Test by XRF spectroscopy

 Test Method: Cadmium, Lead, Mercury, Chromium, Bromine
 -- With reference to IEC 62321-3-1:2013

Test Result:

Material No.	Cd	Cr	Pb	Hg	Br
M001	BL	BL	BL	BL	BL
M002	BL	BL	BL	BL	BL
M003	BL	BL	BL	BL	n.a.
M004	BL	BL	BL	BL	BL
M005	BL	BL	BL	BL	n.a.
M006	BL	BL	BL	BL	BL
M007	BL	BL	BL	BL	BL
M008	BL	BL	BL	BL	BL
M009	BL	BL	BL	BL	BL
M010	BL	BL	BL	BL	BL
M011	BL	BL	BL	BL	n.a.
M012	BL	BL	BL	BL	BL
M013	BL	BL	BL	BL	BL
M014	BL	BL	BL	BL	BL
M015	BL	d*1	BL	BL	n.a.
M016	BL	BL	BL	BL	BL
M017	BL	BL	BL	BL	BL
M018	BL	BL	BL	BL	n.a.
M019	BL	BL	BL	BL	BL
M020	BL	BL	BL	BL	BL
M021	BL	BL	BL	BL	n.a.
M022	BL	BL	BL	BL	BL
M023	BL	BL	BL	BL	BL
M024	BL	BL	BL	BL	n.a.
M025	BL	BL	BL	BL	n.a.
M026	BL	BL	BL	BL	BL
M027	BL	BL	BL	BL	BL
M028	BL	BL	BL	BL	BL
M029	BL	BL	BL	BL	n.a.
M030	BL	BL	BL	BL	d*1
M031	BL	BL	BL	BL	BL
M032	BL	BL	BL	BL	BL
M033	BL	BL	BL	BL	BL
M034	BL	BL	BL	BL	n.a.
M035	BL	BL	BL	BL	n.a.
M036	BL	BL	BL	BL	n.a.

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Abbreviation:	Pb	=	Lead
	Cd	=	Cadmium
	Hg	=	Mercury
	Cr	=	Chromium
	Br	=	Bromine
	n.a.	=	Not applicable
	BL	=	Below limit
	OL	=	Over limit
	d.	=	Detected

Remark:

- (*1) The screening result was detected in the inconclusive region or over limits, thus the further wet chemistry tests are suggested.
- (*2) Component(s)/ materials(s) with an area of less than 2 mm x 2 mm will not be selected for testing according to RoHS Directive 2011/65/EU due to technical reason.
For the test sample does not have detail materials information provided by client, visually identical materials (e.g. wire insulation, solder points, etc.) will be considered as the same material.
Solder points on a printing circuit board will be examined several times based on optical anomalies or discoloration of the solder point(s) unless the solder point(s) is obviously generated automatically during production.
All other materials will be sampled and tested at one test point representatively.
- (*3) The Chromium (Cr) and Bromine (Br) in the above result table indicate the total chromium and total bromine by means of XRF screening. PBBs, or PBDEs content shall be further confirmed with reference to IEC 62321-6:2015. Chromium (VI) shall be further confirmed with reference to IEC 62321-7-1:2015, IEC 62321-7-2:2017 or EN ISO 17075-1:2017.

XRF Screening limits for different matrices :

Material	Concentration (%)				
	Cd	Cr	Pb	Hg	Br
Polymeric	BL≤0.006<X<0.014≤ OL	BL≤0.064<X	BL≤0.067<X<0.133≤ OL	BL≤0.066<X< 0.134≤OL	BL≤0.029<X
Metallic	BL≤0.006<X<0.014≤ OL	BL≤0.064<X	BL≤0.067<X<0.133≤ OL	BL≤0.066<X< 0.134≤OL	n.a.
Composite materials	BL≤0.004<X<0.016≤ OL	BL≤0.044<X	BL≤0.047<X<0.153≤ OL	BL≤0.046<X< 0.154≤OL	BL≤0.024<X

Remark: The symbol "X" marks the region where further investigation is necessary.

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Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)

Test Method: Total Cadmium, Lead, Mercury, Chromium
- Ref. to IEC 62321-4:2013+AMD1:2017 and IEC 62321-5:2013

Chromium (VI)
- For Metal material - Ref. to IEC 62321-7-1:2015
- For Plastic or Electronic material - Ref. to IEC 62321-7-2:2017
- For Leather material - Ref. to EN ISO 17075-1:2017

PBBs, PBDEs - Ref. to IEC 62321-6:2015

Test Result:

	Cd	Cr(VI)	Pb	Hg	PBBs (*)	PBDEs (*)
Maximum Permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

Material No.	(%)					
	Cd	Cr[^]	Pb	Hg	PBBs (*)	PBDEs (*)
	RL (%)					
	0.001	0.001	0.001	0.001	0.01	0.01
M030	n.a.	n.a.	n.a.	n.a.	< RL	< RL

Material No.	Hexavalent Chromium Content ($\mu\text{g}/\text{cm}^2$) (*1) RL: 0.10 $\mu\text{g}/\text{cm}^2$
M015	Negative

Abbreviation:

- Pb = Lead
- Cd = Cadmium
- Hg = Mercury
- Cr = Chromium
- Cr (VI) = Chromium (VI)
- PBBs = Total Polybrominated Biphenyls
- PBDEs = Total Polybrominated Diphenyl Ethers
- < = Less than
- RL = Reporting Limit
- n.a. = Not Applicable
- ^ = The total Chromium have been determined
- % = Percentage

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Remark:

(*) The reporting limit for each individual PBBs and individual PBDEs are :

Reporting Limit (%)		
PBBs	Bromobiphenyl	0.01
	Dibromobiphenyl	0.01
	Tribromobiphenyl	0.01
	Tetrabromobiphenyl	0.01
	Pentabromobiphenyl	0.01
	Hexabromobiphenyl	0.01
	Heptabromobiphenyl	0.01
	Octabromobiphenyl	0.01
	Nonabromobiphenyl	0.01
	Decabromobiphenyl	0.01
PBDEs	Bromodiphenylether	0.01
	Dibromodiphenyl ether	0.01
	Tribromodiphenyl ether	0.01
	Tetrabromodiphenyl ether	0.01
	Pentabromodiphenyl ether	0.01
	Hexabromodiphenyl ether	0.01
	Heptabromodiphenyl ether	0.01
	Octabromodiphenyl ether	0.01
	Nonabromodiphenyl ether	0.01
	Decabromodiphenyl ether	0.01

(*1) The total chromium content in Metal sample was found to be exceeded the maximum permissible limit (0.1%). Thus, the Chromium (VI) content in surface layer have been confirmed with reference to IEC 62321-7-1:2015 Annex.

	Chromium (VI) concentration	Qualitative result
Negative	$<0.1\mu\text{g}/\text{cm}^2$	The sample is negative (-ve) for Cr(VI). The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating
Inconclusive	$\geq 0.1\mu\text{g}/\text{cm}^2$ and $\leq 0.13\mu\text{g}/\text{cm}^2$	The result is considered to be inconclusive. Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination.
Positive	$>0.13\mu\text{g}/\text{cm}^2$	The sample is positive (+ve) for Cr(VI). Concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

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BBP, DBP, DEHP, DIBP content

Test Method: IEC 62321-8:2017

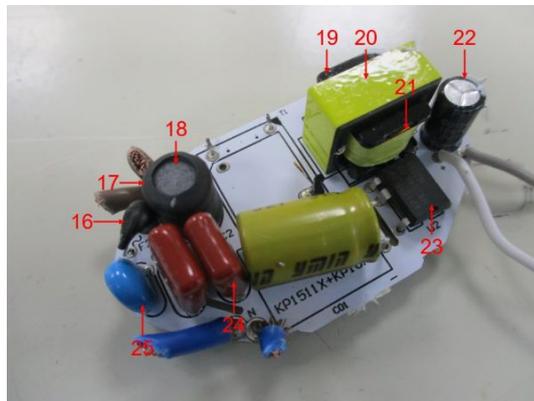
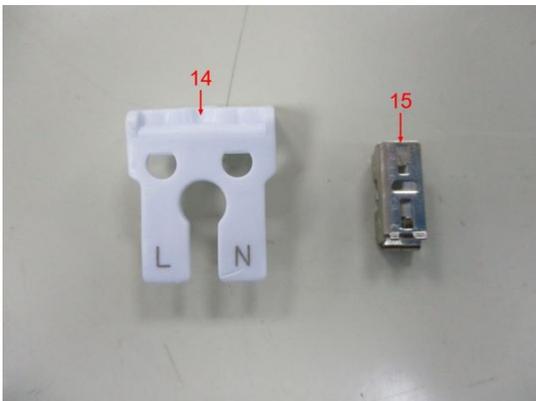
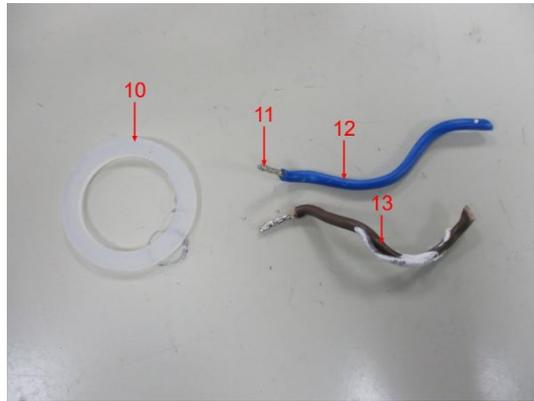
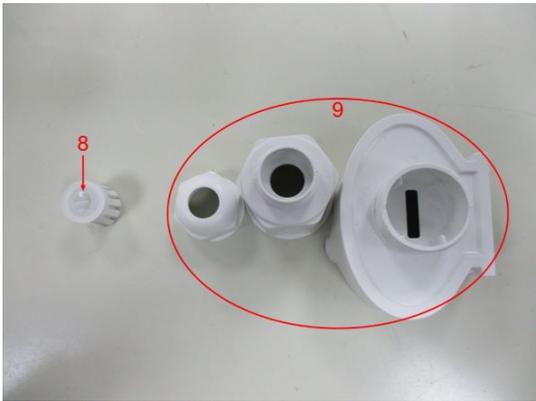
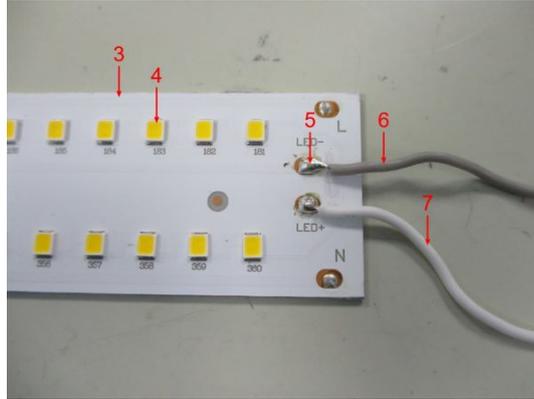
Test Result:

	BBP	DBP	DEHP	DIBP
Maximum permissible Limit (%)	0.1	0.1	0.1	0.1

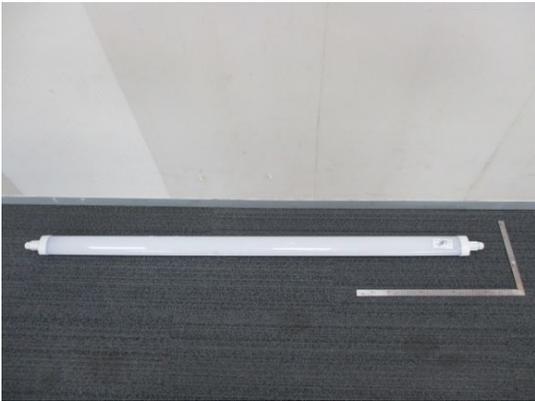
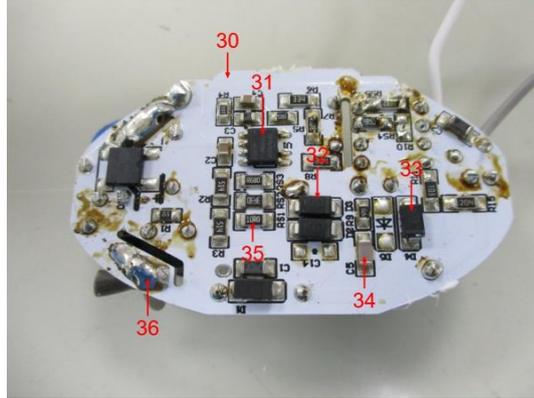
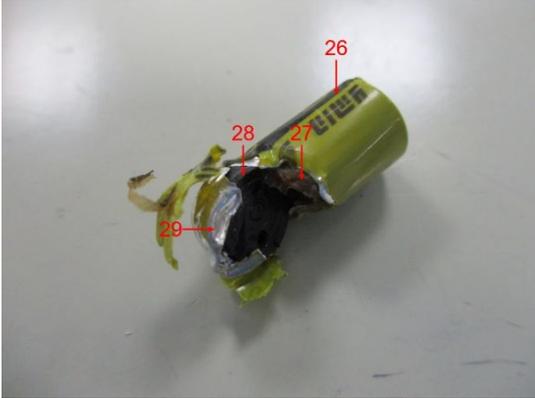
Test No.	Material No.	RL (%)			
		RL (%)			
		BBP	DBP	DEHP	DIBP
		0.005	0.005	0.005	0.005
T001	M006 + M007 + M010	< RL	< RL	< RL	< RL
T002	M012 + M013 + M016	< RL	< RL	< RL	< RL
T003	M017	< RL	< RL	< RL	< RL

Abbreviation: BBP= Benzylbutyl phthalate
 DBP= Dibutyl phthalate
 DEHP= Bis(2-ethylhexyl) phthalate
 DIBP= Diisobutyl phthalate
 < = less than
 RL = Reporting Limit
 N.A. = Not Applicable
 %= percentage

Sample Photos



Sample Photos



- 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 ("GTBCB") is made between the client and one or more member entities of TÜV Rheinland in Greater China as applicable as the case may be. The Greater China hereof refers to Mainland China, Hong Kong and Taiwan. The client hereof includes:

(i) a natural person capable to form legally binding contracts under the applicable laws who concludes the contract for the purpose of a daily or occasional use and not for the purpose of a business;

(ii) the incorporated or unincorporated entity duly organized, validly existing and capable to form legally binding contracts under the applicable law.

1.2 The following terms and conditions apply to all agreed services including consultancy services, information, deliveries and similar services as well as ancillary services and other secondary obligations provided within the scope of contract performance.

1.3 Any standard terms and conditions of the client of any nature shall not 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.

1.4 In the context of an ongoing business relationship with the client, this GTBCB shall also apply to future contracts with the client without TÜV Rheinland having to refer to them separately in each individual case.

2. Quotations

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.

3. Coming into effect and duration of contracts

3.1 The contract shall come into effect for the agreed terms under the quotation letter of TÜV Rheinland or a separate contractual document being signed by both contracting parties, or upon the works requested 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 discretion, entitled to accept the order for such acceptance (including such acceptance including notice sent via electronic means) or by performing the requested services.

3.2 The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term specified in the quotation. If the contract term is not specified in the quotation, the contract term shall 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 contract term.

4. Scope of services

4.1 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 in writing. Both parties shall agree on the scope of service of TÜV Rheinland exists, then the written confirmation of order by TÜV Rheinland shall be decisive for the service to be provided. Unless otherwise agreed, services beyond the scope of the service description (e.g. checking, the downstream processes, organization, use and application, production, installations, organizations 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.

4.2 The agreed services shall be performed in compliance with the regulations in force at the time the contract is entered into.

4.3 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.

4.4 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 no guarantee of the reliability of the systems or their application in accordance with regulations, nor of the systems on which the installation is based. In particular, TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of the systems or their application in accordance with regulations, unless these questions are expressly covered by the contract.

4.5 In the case of inspection work, TÜV Rheinland shall not be responsible for the accuracy or checking of the safety programmes or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.

4.6 If mandatory legal provisions require specific 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 for resulting additional expenses.

4.7 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 information in the work results (test reports, test reports, expert reports, etc.) is not part of the agreed services. The client passes on work results in full or in extracts - to third parties in accordance with clause 11.4.

4.8 The client understands and agrees that in order to perform the contract with TÜV Rheinland, the client may need to conclude agreements with a third party(ies) and/or establish legal relationships with third party(ies) according to such contracts/agreements. TÜV Rheinland will merely bears the corresponding legal liability according to its contract with the direct contracting party(ies) and/or company in the service process. If the relevant services are not directly provided by TÜV Rheinland (including but not limited to any testing and certification services to be provided by third testing and certification bodies), TÜV Rheinland will provide the client as agent for such company in the service process. In order to achieve the purpose of the contract, the client hereby agrees that TÜV Rheinland can also subcontract to a third party to provide agency services, but TÜV Rheinland shall not bear any responsibility and/or risk for any such subcontracting. However, TÜV Rheinland is not limited to the testing and/or certification services to be entrusted and/or applied for by our company on behalf of the client to other third testing and/or certification bodies, agency services or other third parties agreed in writing with the client. The client shall be responsible for the relevant laws and regulations and/or the terms under the contract. If the client is required to conduct any annual review/surveillance of the relevant testing and/or certification services, TÜV Rheinland may charge additional fees for such services. In addition, the client shall be responsible for the testing and certification rules, 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 borne by TÜV Rheinland.

4.9 For the service content agreed in the contract, if the client requires TÜV Rheinland 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 transport. The client shall be responsible for any loss or damages of the samples and/or the materials, etc.). Besides, the relevant freight fees shall be borne by the client.

5. Performance periods/dates

5.1 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.

5.2 In the event of a delay of performance, the agreed periods shall not commence until the client has submitted all required documents to TÜV Rheinland.

5.3 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.

5.4 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 has not done so in time and, in particular, has not provided TÜV Rheinland with all documents and information required for the performance of the service as specified in the contract.

5.5 If the performance of TÜV Rheinland is delayed due to unforeseeable circumstances such as force majeure, strikes, governmental restrictions, governmental or administrative obstacles, 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 resume performance.

5.6 If the client is obliged to comply with legal, officially prescribed and/or by the accreted prescribed deadlines, it is the client's responsibility to agree on performance dates with TÜV Rheinland, which enable the client to comply with all documents and information required for the performance of the service as specified in the contract. TÜV Rheinland expressly agreed in writing specifically stating that ensuring the deadlines is the contractual obligation of TÜV Rheinland.

6. The client's obligation to cooperate

6.1 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.

6.2 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 it is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of the People's Republic of China.
- 6.3 If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to (i) immediately terminate the contract without prior notice; and (ii) without the issued testing reports/certificates if any.
- 6.4 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 when a fixed or maximum price is agreed, TÜV Rheinland shall be entitled to charge extra fees for such additional expense.

7. Prices

7.1 If the scope of performance is not laid down in writing when the order is placed, invoicing shall be based on costs actually incurred. 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.

7.2 Unless otherwise agreed, work shall be invoiced according to the progress of the work.

7.3 If the execution of the contract is interrupted for a period of more than 30 days, the contract or the agreed fixed price exceeds €25,000.00 or equivalent value in local currency, TÜV Rheinland may demand payments on account or in instalments.

8. Payment terms

8.1 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.

8.2 Payments shall be made to the bank account of TÜV Rheinland as indicated on the invoice, stating the invoice and client number.

8.3 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.

8.4 Should the client default in payment of the invoice despite being granted a reasonable grace period, TÜV Rheinland shall be entitled to cancel the contract, withdraw the 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

cases in which 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 The client shall be entitled to raise its fees at the beginning of a month if overruns and/or purchase costs have increased. In this case, TÜV Rheinland shall notify the client in writing and 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 exceeds 5% per contractual 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 time of the 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 offset any amount due or payable by the client, including but not limited to the cost of agency services, on 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 accepted by TÜV Rheinland for the client as an instalment. The client is obliged to accept, immediately or transferred or 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 refuses acceptance within this period stating at least one fundamental breach of contract by TÜV Rheinland.

9.2 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 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 the audit, the client shall be liable for the costs of the audit. TÜV Rheinland is entitled to immediately charge a lump-sum compensation of 10% of the order amount as settlement for expenses. The client reserves the right to prove that the order amount has incurred no damage whatsoever or only a considerably lower damage than the above lump sum.

9.6 Insofar as the client has undertaken in the contract to accept services, TÜV Rheinland shall also be entitled to charge in the event of damages in the amount of the order amount or the 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, expedients, information, data, test results, reports, samples, project documents, pricing and financial information, customer and supplier information, and marketing technical data, including but not limited to, trademarks, logos, and other information or otherwise disclosed by one Party ("the disclosing party") to the other Party ("the receiving party"), in writing or orally, in printed or electronic format. Confidential information is expressly not the data and know-how collected, compiled or otherwise processed by TÜV Rheinland non-permanently and not proprietary to the client) within the scope of the provision of services by TÜV Rheinland. TÜV Rheinland is entitled to store, use, further develop and pass on the data obtained in connection 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 writing form as confidential before passing it onto the receiving party. The disclosing party shall be responsible for the protection of confidential information is disclosed orally, the receiving party shall be confidentially 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 hereunder towards such information. The client shall avoid using any third party platform and/or system (e.g. Wechat, etc.) authorized by TÜV Rheinland to send and receive confidential information. The disclosing party shall send any confidential information to the receiving party by email or other means of communication. The disclosing party shall be liable for any losses or damages due to any theft or leakage to the cause of the adoption of the disclosing party's platform and/or system 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 the performance of the contract by TÜV Rheinland 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.

10.4 The disclosing party shall not be held liable for the disclosure of confidential information, unless this is necessary for fulfilling the purpose of the contract or TÜV Rheinland is required to pass on the confidential information, inspection reports or documentation to the government authorities, judicial court, accreditation bodies or third parties that are involved in the performance of the contract; must be treated by the receiving party with the same level of confidentiality as the receiving party has protected and/or controlled confidential information, but never with a lesser level of confidentiality than that which is reasonably required.

10.5 The receiving party may disclose any confidential information received from the disclosing party to its third parties in order to perform the contract. However, the receiving party is required to make the receiving party undertakes to obligate these employees to observe the same level of secrecy as set forth in this confidentiality clause.

10.6 The disclosing party shall not be held liable for the disclosure of confidential information, unless this is necessary for fulfilling the purpose of the contract or TÜV Rheinland is required to pass on the confidential information, inspection reports or documentation to the government authorities, judicial court, accreditation bodies or third parties that are involved in the performance of the contract; must be treated by the receiving party with the same level of confidentiality as the receiving party has protected and/or controlled confidential information, but never with a lesser level of confidentiality than that which is reasonably required.

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 the secrecy of all confidential information and shall not disclose this information to any third parties or use it for itself.

11. Copyrights and rights of use, publications

11.1 TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test reports/opinions, results calculations, presentations, prepared in line with the contract, 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. However, the client may only use such reports, expert reports/opinions, test reports/opinions, results calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose.

11.3 The transfer of the general right of use is regulated in clause 11.2 of the GTBCB in 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, above shall not apply to damages and/or losses caused by the client, intent or gross negligence on the part of TÜV Rheinland or its vicarious agents. 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 his 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 testification mark of TÜV Rheinland.

12. Liability of TÜV Rheinland

12.1 Respective 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 or its vicarious agents and 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 for a fixed fee plus a time and material basis and 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 the fee for the individual order under 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 only 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 clause 12.1, above shall not apply to damages and/or losses caused by the client, intent or gross negligence on the part of TÜV Rheinland or its vicarious agents. Such limitation shall not apply to damages for a person's death, physical injury or illness.

12.3 In cases involving a fundamental breach of contract, TÜV Rheinland will be liable even where prior negligence is involved. For this purpose, "fundamental breach" shall mean a breach of contractual obligation, the performance of which permits the due performance of the contract. Any claim for damages for a fundamental breach of contract shall be limited to the amount of damages reasonably foreseeable as a possible consequence of such breach of contract at the time the breach (reasonably foreseeable damages), unless any of the circumstances described in article 12.2 applies.

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 under the foregoing provision, 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 or other regions, the client must comply with the respectively applicable regulations of national and international law, in particular with export control laws.

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 thereof 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 that 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 a third party or an external service provider 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 reason for deletion arises. 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 for the data processing, please refer to the respective data protection information. You can contact the Group Data Protection Officer of TÜV Rheinland by e-mail at dataprotection@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 stored following testing and certification. The test samples and the test results shall be stored in the form of samples, which are placed in storage on the basis of statutory regulations or of another agreement with the client.

15.2 Charges apply for the 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 for the purpose of determining the cause of a failure or for other reasons, the client shall 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 pecuniary damage resulting from the loss of the respective information and certification that is brought forward by the client against TÜV Rheinland shall be void.

15.4 The retention period for the documentation shall be 10 (ten) years after the expiry of the test mark certification or until the applicable legal requirements for EU/EEC certificates of conformity and GS mark certification are fulfilled.

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. TÜV Rheinland will be liable for the loss of test samples or 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 GTBCB, 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 the continuation of the remaining services by six (6) weeks prior to the expiry of the notice period of the 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 suspension of its accreditation or notification.

16.2 For good cause, the client is entitled to terminate the contract with written notice to the client to terminate the contract which includes but not limited to the following:

- a) the client does not immediately notify TÜV Rheinland of changes in the conditions within the company which are relevant for certification or other services;
 - b) the client misses the certificate or certification mark or uses it in violation of the contract;
 - c) in the event of several consecutive delays in payment (at least three times);
 - d) a substantial deterioration of the financial circumstances of the client 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) the event of any serious, intentional or grossly negligent behavior of the managers, employees or agents of the client;
 - f) if TÜV Rheinland, for reasons beyond its control, is temporarily or finally not able or entitled to continue to fulfill its contractual obligations or to provide the services, e.g. in case of force majeure, downfalls, interference, sanctions, loss of accreditation or notification, or other.
- 16.3 In the event of termination with written notice by TÜV Rheinland for good cause, TÜV Rheinland shall be entitled to a lump-sum compensation of 10% of the remuneration for the services rendered. In this case, the client shall also pay 15% of the remuneration to be paid until the end of the fixed 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 reserves the right to prove a considerably higher damage in individual cases.
- 16.4 TÜV Rheinland is also entitled to terminate the contract with written notice if the client has not allowed for the opening of the windows for auditing services 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

"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 been foreseen at the time of the conclusion of the contract; 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 conditions (a) and (b) of under paragraph 17.1: (i) war, 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 or piracy; (iii) currency and trade restrictions, export controls, embargoes, sanctions, trade or other laws or unlawful compliance with any law or governmental order, expropriation, seizure of works, requisition, nationalization; (iv) plague, epidemic, natural disaster or extreme natural event; (v) explosion, fire, destruction of equipment, prolonged breakdown of transport, telecommunication information system or factory; (vi) general labor disturbance such as boycott, strike and lock-out, go-stow, occupation of facilities and premises.

17.3 The Party is not liable for the force majeure if 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 given without delay, the relief is effective from the time at which notice thereof reaches the other Party. Where the effect of the impediment or event invoked does not immediately reach the other consequences shall apply only as long as the impediment invoked prevents performance of the contract. If notice thereof is given without delay, the impediment invoked has the effect of substantially depriving the contracting Parties of what they were reasonably entitled to expect under the contract, either Party has the right to terminate the contract by notification to the other Party within a reasonable period of time. Unless otherwise stated, the Parties expressly agree that 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 contract performance due to its contract 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. Unless otherwise stipulated in the contract, the provisions 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 shall be governed by the laws 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 by arbitration in accordance with the arbitration rules of the International Chamber of Commerce (ICC) in force at the time of the contract. Where there is no arbitration agreement in the contract, 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 decided:

- a) 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) to be settled by arbitration under the Arbitration Rules of CIETAC in force at the time of the contract. The arbitration shall take place in Beijing, Shanghai, Shenzhen or Chongqing as appropriately chosen by the claiming party;
- b) in the case of TÜV Rheinland in question being legally registered and existing in Taiwan, to Chinese Arbitration Association, Taipei to be arbitrated in accordance with its then current Rules of Arbitration. The arbitration shall take place in Taipei;
- c) 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.

The decision of the relevant arbitration tribunal shall be final and binding on both parties. The arbitration fee shall be borne by the losing party.