

PASS

Report No.: 244439231a 001 Page 1 of 25

Client: MÜNCHEN ENERGIEPRODUKTE GMBH

Contact Information: Stethaimerstr.32-34,84034 Landshut, Deutschland

Identification/

AR500

Model No(s):

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2021-09-09, 2021-10-22

Testing Period: 2021-09-09 to 2021-11-23

Place of testing: Chemical laboratory Shanghai

Test Specification: Test result:

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.

Other information:

Remark: All data refer to 244319489a 001.

Brand (Trade) Name: Max.on

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

2022-08-08

Ryan Chen / Section Manager

1 / 2

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:

AR500

Material No.	Material	Color	Location
M001	Plastic + printing	White+Grey	Refer to photo
M002	Plastic	Transparent	Refer to photo
M003	Plastic	Translucent	Refer to photo
M004	Foam + adhesive	Black	Refer to photo
M005	Plastic + printing + adhesive	Black+White	Refer to photo
M006	Metal	Golden	Refer to photo
M007	Metal	Silvery	Refer to photo
M008	Metal	Silvery	Refer to photo
M009	Plastic	Transparent	Refer to photo
M010	Metal	Silvery	Refer to photo
M011	Plastic	White	Refer to photo
M012	Plastic + adhesive	White	Refer to photo
M013	Magnet	Grey-black	Refer to photo
M014	Plastic	White	Refer to photo
M015	Magnet	Grey-black	Refer to photo
M016	PCB board	Green	Refer to photo
M017	Plastic	White	Refer to photo
M018	Electronic components	Black	Refer to photo
M019	Plastic	Yellow	Refer to photo
M020	Glue	White	Refer to photo
M021	Metal	Golden	Refer to photo
M022	Solder	Silvery	Refer to photo
M023	PCB board	Green	Refer to photo
M024	Plastic	Black	Refer to photo
M025	Metal	Silvery	Refer to photo
M026	Solder	Silvery	Refer to photo
M027	Plastic	White	Refer to photo
M028	Solder	Silvery	Refer to photo



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M029	PCB board	Green	Refer to photo
M030	Metal	Silvery	Refer to photo
M031	Plastic	Black	Refer to photo
M032	Plastic + adhesive	White	Refer to photo
M033	Plastic + adhesive	Silvery	Refer to photo
M034	Plastic	White	Refer to photo
M035	Plastic	White+Silvery	Refer to photo
M036	Plastic	Translucent	Refer to photo
M037	Glass	Transparent grey	Refer to photo
M038	Glue	Black	Refer to photo
M039	Plastic	Dark yellow	Refer to photo
M040	Plastic + adhesive	Transparent yellow	Refer to photo
M041	Solder	Silvery	Refer to photo
M042	PCB board	Green	Refer to photo
M043	PCB board	Green	Refer to photo
M044	Electronic components	Dark red	Refer to photo
M045	Solder	Silvery	Refer to photo
M046	Textile	White	Refer to photo
M047	Silicon	Light blue	Refer to photo
M048	Plastic	White	Refer to photo
M049	Metal	Silvery	Refer to photo
M050	Metal	Silvery	Refer to photo
M051	Coating	Black	Refer to photo
M052	Metal	Silvery	Refer to photo
M053	Metal	Silvery	Refer to photo
M054	Metal	Silvery	Refer to photo
M055	Metal	Silvery	Refer to photo
M056	Metal	Silvery	Refer to photo
M057	Metal	Black	Refer to photo
M058	Metal	Black	Refer to photo
M059	Plastic	Black	Refer to photo
M060	PCB board	Green	Refer to photo



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M061	Plastic	Black	Refer to photo
M062	Solder	Silvery	Refer to photo
M063	Plastic	Black	Refer to photo
M064	Textile + adhesive	Black	Refer to photo
M065	Plastic + printing + adhesive	White+Black	Refer to photo
M066	Plastic	White	Refer to photo
M067	Plastic	White	Refer to photo
M068	Plastic	Black	Refer to photo
M069	Metal	Silvery	Refer to photo
M070	Metal	Silvery	Refer to photo
M071	Plastic	Light yellow	Refer to photo
M072	Metal	Silvery	Refer to photo
M073	Coating	Black	Refer to photo
M074	PCB board	Green	Refer to photo
M075	Electronic components	Black	Refer to photo
M076	Metal	Copper	Refer to photo
M077	Electronic components	Green	Refer to photo
M078	Electronic components	Grey	Refer to photo
M079	Plastic + adhesive	Yellow	Refer to photo
M080	Metal	Copper	Refer to photo
M081	Plastic	Black	Refer to photo
M082	Electronic components	Black+Grey	Refer to photo
M083	Plastic	Grey-black	Refer to photo
M084	Solder	Silvery	Refer to photo
M085	Plastic	Black	Refer to photo
M086	Plastic	Black	Refer to photo
M087	Metal	Copper	Refer to photo
M088	Metal	Golden	Refer to photo
M089	Solder	Silvery	Refer to photo
M090	Metal	Silvery	Refer to photo
M091	Plastic	Navy	Refer to photo
M092	Coated textile	White	Refer to photo



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M093	Plastic	Black	Refer to photo
M094	Plastic	Red	Refer to photo
M095	Plastic	Black	Refer to photo
M096	Plastic	White	Refer to photo
M097	Plastic	White	Refer to photo
M098	Plastic	White+Blue	Refer to photo
M099	Metal	Golden	Refer to photo
M100	Glue	Black	Refer to photo
M101	Electronic components	Yellow+White	Refer to photo
M102	Solder	Silvery	Refer to photo
M103	Metal + coating	Silvery+White	Refer to photo
M104	Plastic	Black	Refer to photo
M105	Plastic	Red	Refer to photo
M106	Solder	Silvery	Refer to photo
M107	Plastic	Red	Refer to photo
M108	Plastic	Black	Refer to photo
M109	Plastic	Dark grey	Refer to photo
M110	Plastic	Yellow	Refer to photo
M111	Metal	Silvery	Refer to photo
M112	Metal	Silvery	Refer to photo
M113	Plastic	Black	Refer to photo
M114	Plastic	White	Refer to photo
M115	Metal	Golden	Refer to photo
M116	Solder	Silvery	Refer to photo
M117	Plastic	Dark red	Refer to photo
M118	Plastic	Black	Refer to photo
M119	Textile	Black	Refer to photo
M120	Plastic	Black	Refer to photo
M121	Metal	Golden	Refer to photo
M122	Solder	Silvery	Refer to photo
M123	Plastic	Black	Refer to photo
M124	PCB board	Dark yellow	Refer to photo



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M125	Metal	Silvery	Refer to photo
M126	Plastic	Black	Refer to photo
M127	Plastic	Black	Refer to photo
M128	Plastic + printing + adhesive	Black+Grey	Refer to photo
M129	Metal	Copper	Refer to photo
M130	PCB board	Green	Refer to photo
M131	Solder	Silvery	Refer to photo
M132	Plastic + adhesive	Transparent	Refer to photo
M133	Plastic + printing + adhesive	Silvery+Black	Refer to photo
M134	Plastic	Black	Refer to photo
M135	PCB board	Green	Refer to photo
M136	Solder	Silvery	Refer to photo
M137	Textile + adhesive	White	Refer to photo
M138	Plastic	Brown	Refer to photo
M139	Plastic	Black	Refer to photo
M140	Plastic	Grey	Refer to photo
M141	Plastic	Purple	Refer to photo
M142	Plastic	White	Refer to photo
M143	Plastic	Turquoise	Refer to photo
M144	Paper	Dark green	Refer to photo
M145	Foam + adhesive	Black	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				
M002	< BL				
M003	< BL				
M004	< BL				
M005	< BL				
M006	< BL	< BL	d*1	< BL	n.a.
M007	< BL	< BL	< BL	< BL	n.a.
M008	< BL	d*1	< BL	< BL	n.a.
M009	< BL				
M010	< BL	d*1	< BL	< BL	n.a.
M011	< BL				
M012	< BL				
M013	< BL	< BL	< BL	< BL	n.a.
M014	< BL				
M015	< BL	< BL	< BL	< BL	n.a.
M016	< BL	< BL	< BL	< BL	d*1
M017	< BL	< BL	< BL	< BL	d*1
M018	< BL				
M019	< BL	< BL	< BL	< BL	d*1
M020	< BL				
M021	< BL	< BL	d*1	< BL	n.a.
M022	< BL	< BL	< BL	< BL	n.a.
M023	< BL				
M024	< BL				
M025	< BL	d*1	< BL	< BL	n.a.
M026	< BL	< BL	< BL	< BL	n.a.
M027	< BL				
M028	< BL	< BL	< BL	< BL	n.a.
M029	< BL	< BL	< BL	< BL	d*1
M030	< BL	< BL	< BL	< BL	n.a.
M031	< BL	< BL	< BL	< BL	d*1
M032	< BL				
M033	< BL				
M034	< BL				
M035	< BL				
M036	< BL				
M037	< BL	< BL	< BL	< BL	n.a.



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M038						
M040	M038	< BL				
M041 < BL	M039	< BL				
M042	M040	< BL				
M043	M041	< BL	< BL	< BL	< BL	n.a.
M044 < BL	M042	< BL	< BL	< BL	< BL	d*1
M045 < BL	M043	< BL				
M046 < BL	M044	< BL				
M047 < BL	M045	< BL	< BL	< BL	< BL	n.a.
M048 < BL	M046	< BL				
M049 < BL < BL < BL < BL n.a. M050 < BL	M047	< BL				
M050 < BL d*1 < BL < BL	M048	< BL				
M051 < BL	M049	< BL	< BL	< BL	< BL	n.a.
M052 < BL	M050	< BL	d*1	< BL	< BL	n.a.
M053 < BL	M051	< BL				
M054 < BL	M052	< BL	d*1	< BL	< BL	n.a.
M055 < BL	M053	< BL	d*1	< BL	< BL	n.a.
M056 < BL	M054	< BL	d*1	< BL	< BL	n.a.
M057 < BL	M055	< BL	< BL	< BL	< BL	n.a.
M058 < BL	M056	< BL	< BL	< BL	< BL	n.a.
M059 < BL	M057	< BL	d*1	< BL	< BL	n.a.
M060 < BL	M058	< BL	d*1	< BL	< BL	n.a.
M061 < BL	M059	< BL				
M062 < BL	M060	< BL	< BL	< BL	< BL	d*1
M063 < BL	M061	< BL				
M064 < BL	M062	< BL	< BL	< BL	< BL	n.a.
M065 < BL	M063	< BL				
M066 < BL < BL < BL < BL d*1 M067 < BL	M064	< BL				
M067 < BL	M065	< BL				
M068 < BL	M066	< BL	< BL	< BL	< BL	d*1
M069 < BL	M067	< BL				
M070 < BL < BL < BL < BL n.a. M071 < BL	M068	< BL				
M071 < BL < BL < BL < BL d*1 M072 < BL	M069	< BL	< BL	< BL	< BL	n.a.
M072 < BL	M070	< BL	< BL	< BL	< BL	n.a.
M073 < BL		< BL	< BL	< BL	< BL	d*1
M074 < BL	M072	< BL	< BL	< BL	< BL	n.a.
M075 < BL	M073	< BL				
M076 < BL	M074	< BL	< BL	< BL	< BL	d*1
M077 < BL	M075	< BL				
M078 < BL < BL < BL < BL d*1 M079 < BL	M076	< BL	< BL	< BL	< BL	
M079 < BL < BL < BL < BL < BL	M077	< BL				
	M078	< BL	< BL	< BL	< BL	d*1
M080	M079	< BL				
	M080	< BL	< BL	< BL	< BL	n.a.



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M081	< BL				
M082	< BL				
M083	< BL				
M084	< BL	< BL	< BL	< BL	n.a.
M085	< BL				
M086	< BL				
M087	< BL	< BL	< BL	< BL	n.a.
M088	< BL	< BL	< BL	< BL	n.a.
M089	< BL	< BL	< BL	< BL	n.a.
M090	< BL	< BL	< BL	< BL	n.a.
M091	< BL				
M092	< BL				
M093	< BL				
M094	< BL				
M095	< BL				
M096	< BL				
M097	< BL				
M098	< BL	< BL	< BL	< BL	d*1
M099	< BL	< BL	< BL	< BL	n.a.
M100	< BL				
M101	< BL				
M102	< BL	< BL	< BL	< BL	n.a.
M103	< BL	< BL	< BL	< BL	n.a.
M104	< BL				
M105	< BL				
M106	< BL	< BL	< BL	< BL	n.a.
M107	< BL				
M108	< BL				
M109	< BL	< BL	< BL	< BL	d*1
M110	< BL	< BL	< BL	< BL	d*1
M111	< BL	< BL	< BL	< BL	n.a.
M112	< BL	< BL	< BL	< BL	n.a.
M113	< BL				
M114	< BL	< BL	< BL	< BL	n.a.
M115	< BL	< BL	d*1	< BL	n.a.
M116	< BL	< BL	< BL	< BL	n.a.
M117	< BL				
M118	< BL				
M119	< BL				
M120	< BL	< BL	< BL	< BL	d*1
M121	< BL	< BL	d*1	< BL	n.a.
M122	< BL	< BL	< BL	< BL	n.a.
M123	< BL				



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M124	< BL				
M125	< BL	< BL	< BL	< BL	n.a.
M126	< BL	< BL	< BL	< BL	d*1
M127	< BL	< BL	< BL	< BL	d*1
M128	< BL				
M129	< BL	< BL	< BL	< BL	n.a.
M130	< BL	< BL	< BL	< BL	d*1
M131	< BL	< BL	< BL	< BL	n.a.
M132	< BL				
M133	< BL				
M134	< BL	< BL	< BL	< BL	d*1
M135	< BL	< BL	< BL	< BL	d*1
M136	< BL	< BL	< BL	< BL	n.a.
M137	< BL				
M138	< BL				
M139	< BL				
M140	< BL				
M141	< BL				
M142	< BL				
M143	< BL				
M144	< BL				
M145	< BL	< BL	< BL	< BL	d*1

Abbreviation: Pb = Lead

Cd = Cadmium Hg = Mercury Cr = Chromium Br = Bromine n.a. = Not appliable = Below limit BL OL = Over limit = Detected d.



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Remark:

- (*1) The screening result was found in the inconclusive region, thus the further wet chemistry tests are suggested.
- (*2) Component(s)/ materials(s) with an area of less than 2mm x2 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 :

	Concentration (%)						
Material	Cd	Cr	Pb	Hg	Br		
Polymeric	BL≤0.006 <x<0.014≤ OL</x<0.014≤ 	BL≤0.064 <x< th=""><th>BL≤0.067<x<0.133≤ OL</x<0.133≤ </th><th>BL≤0.066<x< 0.134≤OL</x< </th><th>BL≤0.029<x< th=""></x<></th></x<>	BL≤0.067 <x<0.133≤ OL</x<0.133≤ 	BL≤0.066 <x< 0.134≤OL</x< 	BL≤0.029 <x< th=""></x<>		
Metallic	BL≤0.006 <x<0.014≤ OL</x<0.014≤ 	BL≤0.064 <x< th=""><th>BL≤0.067<x<0.133≤ OL</x<0.133≤ </th><th>BL≤0.066<x< 0.134≤OL</x< </th><th>n.a.</th></x<>	BL≤0.067 <x<0.133≤ OL</x<0.133≤ 	BL≤0.066 <x< 0.134≤OL</x< 	n.a.		
Composite materials	BL≤0.004 <x<0.016≤ OL</x<0.016≤ 	BL≤0.044 <x< th=""><th>BL≤0.047<x<0.153≤ OL</x<0.153≤ </th><th>BL≤0.046<x< 0.154≤OL</x< </th><th>BL≤0.024<x< th=""></x<></th></x<>	BL≤0.047 <x<0.153≤ OL</x<0.153≤ 	BL≤0.046 <x< 0.154≤OL</x< 	BL≤0.024 <x< th=""></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 (*)		
Material No.	RL (%)							
	0.001	0.001	0.001	0.001	0.01	0.01		
M006	n.a.	n.a.	2.53 6 (c)	n.a.	n.a.	n.a.		
M016	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M017	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M019	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M021	n.a.	n.a.	1.52 6 (c)	n.a.	n.a.	n.a.		
M029	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M031	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M042	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M060	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M066	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M071	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M074	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M078	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M098	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M109	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M110	n.a.	n.a.	n.a.	n.a.	< RL	< RL		
M115	n.a.	n.a.	1.58 6 (c)	n.a.	n.a.	n.a.		
M120	n.a.	n.a.	n.a.	n.a.	< RL	< RL		



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M121	n.a.	n.a.	1.47 6 (c)	n.a.	n.a.	n.a.
M126	n.a.	n.a.	n.a.	n.a.	< RL	< RL
M127	n.a.	n.a.	n.a.	n.a.	< RL	< RL
M130	n.a.	n.a.	n.a.	n.a.	< RL	< RL
M134	n.a.	n.a.	n.a.	n.a.	< RL	< RL
M135	n.a.	n.a.	n.a.	n.a.	< RL	< RL
M145	n.a.	n.a.	n.a.	n.a.	< RL	< RL

Material No.	Hexavalent Chromium Content (μg/cm²) (*1) RL: 0.10 μg/cm²
M008	Negative
M010	Negative
M025	Negative
M050	Negative
M052	Negative
M053	Negative
M054	Negative
M057	Negative
M058	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

Remark:



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(*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	<0.1µg/cm²	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	≥0.1µg/cm² and ≤0.13 µg/cm²	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 µg/cm²	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).

^{6 (}c) Copper alloy containing up to 4 % lead by weight.



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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

		(%)					
To at No	Matarial Na	BBP	DBP	DEHP	DIBP		
Test No.	Material No.	RL (%)					
		0.005	0.005	0.005	0.005		
T001	M001 + M002 + M003	< RL	< RL	< RL	< RL		
T002	M005 + M009 + M011	< RL	< RL	< RL	< RL		
T003	M012 + M014 + M016	< RL	< RL	< RL	< RL		
T004	M017 + M018 + M019	< RL	< RL	< RL	< RL		
T005	M023 + M024 + M027	< RL	< RL	< RL	< RL		
T006	M029 + M031 + M032	< RL	< RL	< RL	< RL		
T007	M033 + M034 + M035	< RL	< RL	< RL	< RL		
T008	M036 + M039 + M040	< RL	< RL	< RL	< RL		
T009	M042 + M043 + M044	< RL	< RL	< RL	< RL		
T010	M047 + M048 + M059	< RL	< RL	< RL	< RL		
T011	M060 + M061 + M063	< RL	< RL	< RL	< RL		
T012	M065 + M066 + M067	< RL	< RL	< RL	< RL		
T013	M068 + M071 + M074	< RL	< RL	< RL	< RL		
T014	M075 + M077 + M078	< RL	< RL	< RL	< RL		
T015	M079 + M081 + M082	< RL	< RL	< RL	< RL		
T016	M083 + M085 + M086	< RL	< RL	< RL	< RL		
T017	M091 + M093 + M094	< RL	< RL	< RL	< RL		
T018	M098 + M101 + M104	< RL	< RL	< RL	< RL		
T019	M105 + M107 + M108	< RL	< RL	< RL	< RL		
T020	M109 + M110 + M113	< RL	< RL	< RL	< RL		
T021	M114 + M117 + M118	< RL	< RL	< RL	< RL		



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T022	M120 + M123 + M124	< RL	< RL	< RL	< RL
T023	M126 + M127 + M128	< RL	< RL	< RL	< RL
T024	M130 + M132 + M133	< RL	< RL	< RL	< RL
T025	M051 + M073	< RL	< RL	< RL	< RL
T026	M092 + M064	< RL	< RL	< RL	< RL
T027	M020 + M038 + M100	< RL	< RL	< RL	< RL
T028	M004 + M145	< RL	< RL	< RL	< RL
T029	M096	< RL	< RL	< RL	< RL
T030	M097	< RL	0.016	< RL	< RL
T031	M095	< RL	< RL	< RL	< RL
T032	M134	< RL	< RL	< RL	< RL
T033	M135	< RL	< RL	< RL	< RL
T034	M137	< RL	< RL	< RL	< RL
T035	M138	< RL	< RL	< RL	< RL
T036	M139	< RL	< RL	< RL	< RL
T037	M140	< RL	0.030	< RL	< RL
T038	M141	< RL	< RL	< RL	< RL
T039	M142	< RL	< RL	< RL	< RL

Abbreviation: BBP= Benzylbutyl phthalate

T040

DBP= Dibutyl phthalate

M143

DEHP= Bis(2-ethylhexyl) phthalate

< RL

< RL

< RL

< RL

DIBP= Diisobutyl phthalate

< = less than

RL = Reporting Limit N.A. = Not Applicable

%= percentage



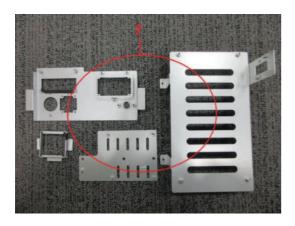
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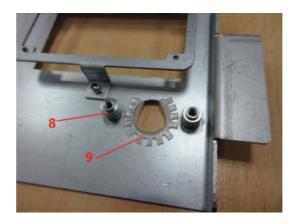






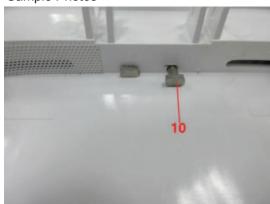


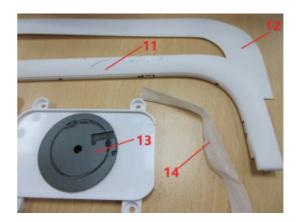


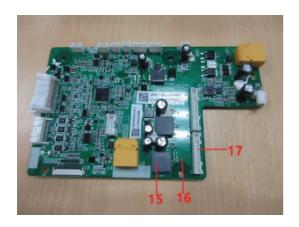




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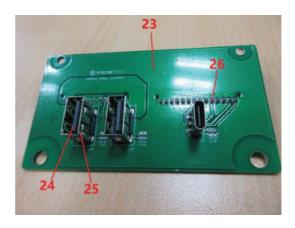






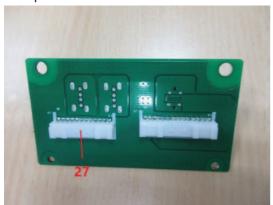


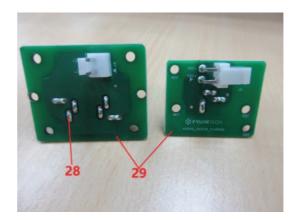


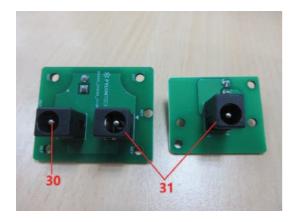




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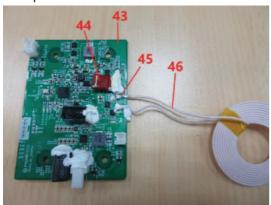


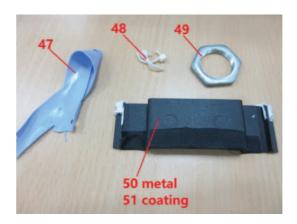




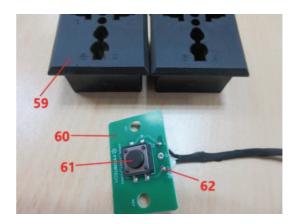


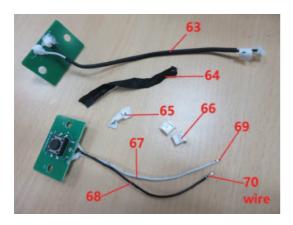
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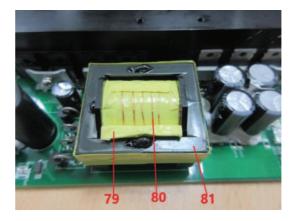


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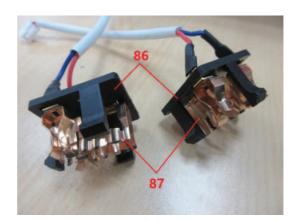


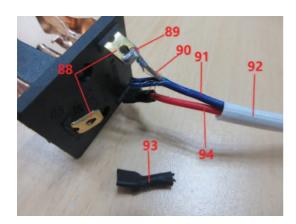


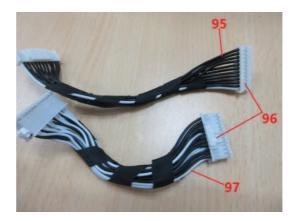


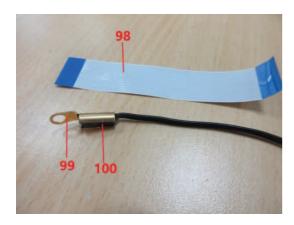
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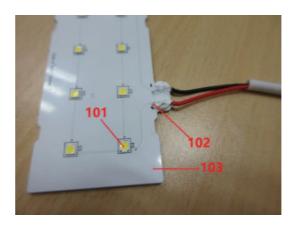






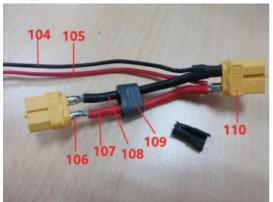


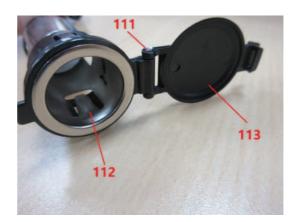






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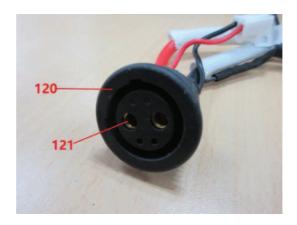












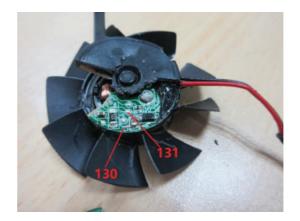


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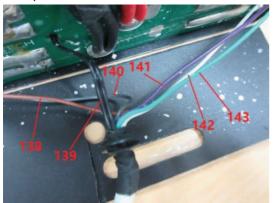


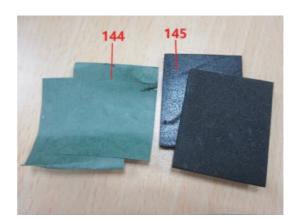






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General Terms and Conditions of Business of TÜV Rheinland in Greater China

These General Terms and Conditions of Business of TDV Rheinland in Greater China ("CTCE") is made between the client and one or more member entitles of TDV Rheinland in Terter to Marinda China. Hone Kong and Talwan The client hereof includes. China hereof refers to Marinda China. Hone Kong and Talwan The client hereof includes: (i) a natural person capable to form legally binding contracts under the applicable laws who concludes the contract not for the purpose of a daily user. The contract of the contrac

coagainors provided within the scope of contract performance.

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 TUP Rehalland does not explicitly deplect to them; and the contract with the client shall slos apply to future contracts with the client without TOV Rheinland having to refer to them separately in each individual case.

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.

The contract that come into effect for the agreed term upon the agrotion tests of TU. Phelicited or a separate contracted document bearing jumped by both continuiting prefixe to upon the works requested by the client being carried out by TUV Rheinland. If the client instructs TUV Rheinland without receiving a quotation from TUV Rheinland (quotation), TUV Rheinland is, in its sole discretion, entitled to accept the order by giving written notice of such acceptance (including notice sent that electronic means) or by performing the requested

services. 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. 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 pror to the end of the contractual term.

Scope of services

The scope and type of the services to be provided by TUV Rheinland shall be specified in the contractually agreed service scope of TUV Rheinland by both parties. If no such separate service scope of TUV Rheinland by both parties. If no such separate service scope of TUV 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 correctness and functionality of parts, products, processes, installations, organizations not listed in the service description, as well as the intended use and application of such are not owned. In particular, no responsibility and services the service of the service description, as well as the intended use and application of such are not owned. In particular, no responsibility the particular to the service of the service of

IUV Rheniand 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. On execution of the work there shall be no simultaneous assumption of any guarantee of the correctness (proper quality) and working order of either fested or examined parts nor of the intelliation as who who and its questions mador downstream processes, organizations, use and intelliation as who will be a superior or the processes of the particular. The particular of the particular, TIV 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 regulations, unless these questions are expressly covered by the contract.

in accordance with regulations, unless these questions are expressly covered by the contract. In the case of inspection work. TOV Rehelands 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.

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, TOV Rehelands shall be entitled to additional remuneration for resulting additional expenses. The services to be provided by TOV Rhienland under the contract or agreed exclusively with the client. A contract of third parties with the services of TOV Rhienland, as well as making reports, etc.) is not part of the agreed survices. This lates applies if the client passes on work results - in full or in extracts - to third parties in accordance with clause 11.4.

5.1

Performance periodisidates of performance are based on estimates of the work brother periodisidates of performance are based on estimates of the work brother periodisidates of performance are based on estimates of the work brother periodisidates of performance have been agreed, these periodis shall not commence until the client has submitted all required occuments to TOV Phelinida.

Ancials 51 and 52 also apply, even without express approval by the client, to all extensions of Articles 51 and 52 also apply, even without express approval by the client, to all extensions of the periodistic periodistic

The client's obligation to cooperate

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 $T\bar{U}V$ Rheinland.

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 made be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client represents and warrants that:

It has required statutory qualifications:

The product, service or management system to be certified complies with applicable laws and regulations; and

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.

If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to i) immediately terminate the contractorder without prior notice, and ii) withdraw the issued testing report/certificates if any.

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 cli

7.2 7.3

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 last of TUY Rheinland valid at the time of performance. Unless otherwise agreed, work shall be invoiced according to the progress of the work. If the execution of an order extends over more than one month and the value of the contract or the agreed fixed price exceeds £2,500.00 or equivalent value in local currency, TUY Rheinland may demand payments on account or in instalments.

Payment terms

All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on recept of the invoice. No discounts and rebates shall be granted.

Payments shall be made to the bank account of TUV Rheinland as indicated on the invoice, stating the invoice and client numbers and client numbers and client numbers incliented 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 TUV Rheinland is located. At the same time, TUV Rheinland reserves the right to claim further damages.

Should the client default in payment of the invoice despite being granted a reasonable grace period, TUV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-partermance and recordinate contract of the country where payment of the invoice despite being granted a reasonable grace period, TUV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-partermance and recordinate of the contract of the country of the contract of the country of the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's assets or cases in which the commercement of insolvency proceedings against the client's asset or cases in which the commercement of insolvency proceedings against the client's asset or cases in which

of assets.

Objections to the invoices of TÜV Rheinland shall be submitted in writing within two weeks of receipt of the invoices.

Objections to the invoices of TUV Rheinland shall be submitted in writing within two weeks of TUV Rheinland shall be entitled to demand appropriate davonce payments. TUV Rheinland shall be entitled to entitled to raise its fees at the beginning of a most if overheads and/or purchase costs have increased. In this case, TUV Rheinland shall notify the client in writing of the rate in fees. This notification shall be issued one month prior to the date on which remains under 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 expirit of the notice period.

Only legally established and undisputed claims may be offset against claims by TÜV Rheirland. TÜV Rheirland shall have the right at all times to setoff any amount due or payable by the client, including but not limited to setoff against any fees paid by the client under any contracts, agreement and/or orders/quotations reached with TÜV Rheirland.

Acceptance of work

Any part of the work result ordered which is complete in itself may be presented by $T\bar{U}V$ Rheinland for acceptance as an instalment. The client shall be obliged to accept it

immediately, 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 fundmental breach of contract by TIM Publishers. neinland.

ent is not entitled to refuse acceptance due to insignificant breach of contract by TÜV

The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV remeinland.

The consideration of the contract of the contract of the work performance of TÜV Rheinland, the completion of the work shall take its place. During the Follow-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 withdrann (e.g. performance of surveillance of the certificate is therefore to be withdrann (e.g. performance of surveillance than agreed date, TÜV Rheinland since the certificate is therefore to the withdrann (e.g. performance of surveillance than agreed date, TÜV Rheinland since the certification of the contract of t

Confidentiality

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, project documents, princing and financial information, data, test results, reports, samples, project documents, princing and financial information, and marketing techniques and materials, techniques and techniques and

biddle doubt and statement in a parabot robot of the Contraction of the performance of the contract, 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 reasonably required.

The protection of the contract is a supposed to the confidentiality than that which is reasonably required. The protection of the contract is a suppose who need this information received from the disclosing party contract to the contract. The receiving party undestables to oblige these employees to observe the same level of secretory as set forth in this confidentiality clause. Information for which the receiving party can furnish proof that: It was generally known at the time of disclosure or has become general knowledge without violation of this confidentiality clause by the receiving party, or the receiving party aready possessed this information prior to disclosure by the disclosure party or party deep years deep level in the receiving party or party deep years deep level it isself, irrespective of disclosure by the disclosing party, shall the receiving party or disclosure by the disclosing party, shall

the receiving party already possessed this information prior to disclosure by the disclosing party, and party companies of the party comp

10.7

11.4

Copyrights and rights of use, publications

TOV Rhariand shall rational all scalariors copyrights in the raports, expert reports/coninors, test reports/results, results, calculations, presentations etc. prepared by TDV Rhariand, unless otherwise agreed by the parties in a separate agreement. As the owner of the copyrights, TDV Rhariand is feet to grant others the right to use the work results for includuate or all types of use ("right of use"). The client receives a simple, unlimited, pro-transferable, pro-publiconsable right of use to the contract of visuality produced within the scope of the contract, unless otherwise agreed by the parties in a separate agreement. The client may only use such reports experited visuality, results calculations, presentations etc. prepared within the scope of the contract, but reports/contract, results calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose. The transfer of right of use of the generated work results regulated in clause 11.2 of the GTCB is subject to this payment of the remuneration agreed in favour of TDV Rhariand.

The work results in full unless TDV Rheriand has given its prior written consent to the partial passing on of work results. To rehariand the given its prior written consent to the partial passing on of work results and the results of advertising purposes or any further use of the work results beyond the scope regulated in clause 11.2, and any quotation of the individual cause. Beaules, the client ensures that the adjected in the propriety with relevant applicable laws, regulations and relevant rules (including but not limited to specific applicable esting and certification rules, etc.).

TOV Rheriand may revoke a once given approval according to clause 11.5 at any time without stating reasons. In this case, the client to oxigh to took the transfer of the work results for exert the client to use the corporate loop, coporate design or test/certification mark of TDV Rheriand.

11.6

Liability of TÜV Rheinland

Liability of TÜV Rheinland 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 andice employees shall be limited bit. (i) in the case of a contract with a fixed overall fee, three limins services, the agreed annual fixe, (iii) in the case of a contract roth services, the agreed annual fixe, (iii) in the case of a famourte depressly changed on a tilm sed material basis, a maximum of 20,000 Euro or equivalent amount in local currency, and (iv) in the case of a famourte of the services, the agreed annual fixe, (iii) in the case of a famourte of the services, the agreed annual fixe, (iii) in the provision of the possibility of falson provided in order, three times of the fee for the individual order under which the damages or bases have calculated according to the foreign provisions exceeded 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. In the contract of the contract of the contract of the provision of the contract. Various agents, such limitation shall not apply to damages for a person feath, physical injury or liness.

rijury or illnies.
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 breach of a material Any claim for diamages 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 (reasonably foreseeable damages), unless any of the circumstances.

time of the breach (reasonably foreseeable damages), unless any of the circumstances described in article 122 applies.

TÜV Rheinland shall not be laide of the acts of the personnel made available by the client to TÜV Rheinland shall not be laide of the acts of the services under the contract, unless such personnel made available is regarded as vicerious appet of TÜV Rheinland against a fit of the 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 thirt parties arising from or in connection with such personnel's acts.

contract to the client. The limitation periods for claims for damages shall be based on statutory provisions. None of the provisions of this article 12 changes the burden of proof to the disadvantage of the

Export control 13.1

When passing on the services provided by TÜV Rheinland or parts hereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control to provise or that there are no obstacles The performance of a contract with the client is subject to the provise that there are no obstacles to performance due to national or international foreign trade legislations or embargos 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.

The client understands and agness that TÜV Rheinland processes personal data (including but not mitted to personal information) of the client and its related parties (including but not limited to be supplied or the client) for the purpose of fulfilling ins 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 Istelf and data. TÜV Rheinland will use and process the data is accordance with the relevant legal basis. If any personal data has to be disclosed or transferred to any third party or 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 use 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 subject the confirmation of the data subject to the client and the local country. TÜV Rheinland will sate security related laws and regulations in China and the local country. TÜV Rheinland will sate measures to avoid any leakage, abuste, maripulation, damage or unauthorized access of personal data. The personal data will be deleted immediately as soon as a corresponding reason for deletion arise. Data subjects may excess the following rights: right of information, the processing have the right to revoke their consent at any time with felect for the future, as well as the right to sevential complete or consent of the completent data protection supervisory authority. For further details on the processing of personal data by TÜV Rheinland will see the personal their control of the processing have the right to revoke their consent at any time with felect for the future, as well as the right to seventiate or control of the processing of personal data by TÜV Rheinland will as the persona personative or cont

Retention of test material and documentation

The test samples submitted by the client to TUV Rheiniland for testing will be scrapped following testing or will be returned 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 Charges apply if the test samples are stored at the premises of TUV Rheiniand. The cost of placing a test sample into storage will be disclosed to the client in the quotation. It reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations must be made available to TUV request, is incapable of making variability the reference samples and/or concernation, any liability claims for material and pocuriary damage resulting from the respective testing and certification that is brought forward by the client algainst TUV Rheiniand shall be voided.

The retention period for the documentation shall be 10 (ten) years after the expiry of the test mark certificates or shall meet the applicable legal requirements for EUCC certificates or Tub client. Tuty Rheiniand and all the loss of the handows and dispatch of the test samples for storage on the client's premises are borne by the client. Tuty Rheiniand will be liable for the loss of test samples or reference samples from the laboratories or warehouses of TUV Rheiniand only in case of gross negligence. 15.4

Termination of the contract

Notwithstanding clause 3.3 of the GTCB, 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 contract and the contract individually and independently of the continuation of the contract and the contract individually and independently of the continuation of the contract part of the contract individually and independently of the contract of the contract individually and contract individual contract individ

17.2

withdrawn (for example during the performance of monitoring audis). Clause 16.3 applies accordingly.

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 a read to the contract, and contract the second of the contract, and contract the second of the second performance of the contract, and (c) that the effects of the impediment could not reasonably have been revenue at the time of the contract, and (c) that the effects of the impediment could not reasonably have been avoided or overcome by the efficied Party, contract the contract, and (c) that the effects of the impediment could not reasonably have been avoided or overcome by the efficied Party, contract, and contract the contract, and (c) that the effects of the impediment could not reasonably have been avoided or overcome by the efficied Party, contract the efficiency of t

19.3

Hardship
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 Notwithstanding paragraph 1 of this Clause, where a Party proves that:

The continual 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 conclassion of the contract, and that attained the control which it could not reasonable properties are bound, within a reasonable time of the invocation of this Clause, to negotiate alternative contractual terms which reasonably silve to overcome the consequences of the Parties are bound, within a reasonable time of the invocation of this Clause, to negotiate alternative contractual terms which reasonable yilve to overcome the consequences of the event.

Where Clause 18.2 applies, but where the Parties have been unable to agree alternative terminate the contract, but cannot request adaptation by the judge or arbitrator without the agreement of the other Party.

Partial invalidity, written form, place of jurisdiction and dispute reso

agreement of the other Party.

Partial invalidity, written form, place of jurisdiction and dispute resolution.

All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 171.

It is a supplementation of the control of the control of the control of the leaves of the control of the invalid provision with a legally valid provision with a legally valid provision that comes closes to the content of the invalid provision in legal and commercial terms.

Unless otherwise subpadded in the contract, the governing leve of the contract and these terms with the contracting parties shall be contracted to the contract of the contract of the provision in the legally valid provision with a 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.

If TUV Rheinfand in question is legally registered and existing in Talwan, the contracting parties hereby agree that the contract and these terms and conditions hall be governed by the laws of the People's Republic of China.

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Unless otherwise slipulated in the contract, if no settlement or no agreement in respect of the dispate, the dispate shall be submitted.

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