

WEEE Report

No.: NGBEC25000682601

Date: Mar 19, 2025

Page 1 of 13

Client Name: NINGBO AUX SOLAR TECHNOLOGY CO., LTD.

Client Address: NO. 17 FENGLIN ROAD, CICHENG TOWN, JIANGBEI DISTRICT, NINGBO CITY, ZHEJIANG PROVINCE, CHINA

Sample Name: Hybrid solar inverter

Tested Basic Model No.: ASG-20TL-ZH

Client Ref. Information: ASG-5TL-ZH、ASG-6TL-ZH、ASG-8TL-ZH、ASG-10TL-ZH、ASG-12TL-ZH、ASG-15TL-ZH

The above sample(s) and information were provided by the client.

SGS Job No.: TIC1020250116160248YKIJ

Sample Receiving Date: Feb 11, 2025

Testing Period: Feb 11, 2025 ~ Feb 13, 2025

Product Weight:: 39502.5 g

Product Size: 56.5 cm×52.0 cm×23.2 cm

Category under the WEEE 4th category (Large equipment
Directive: (any external dimension more than 50 cm))



Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch

Damon Li

Damon Li
Approved Signatory

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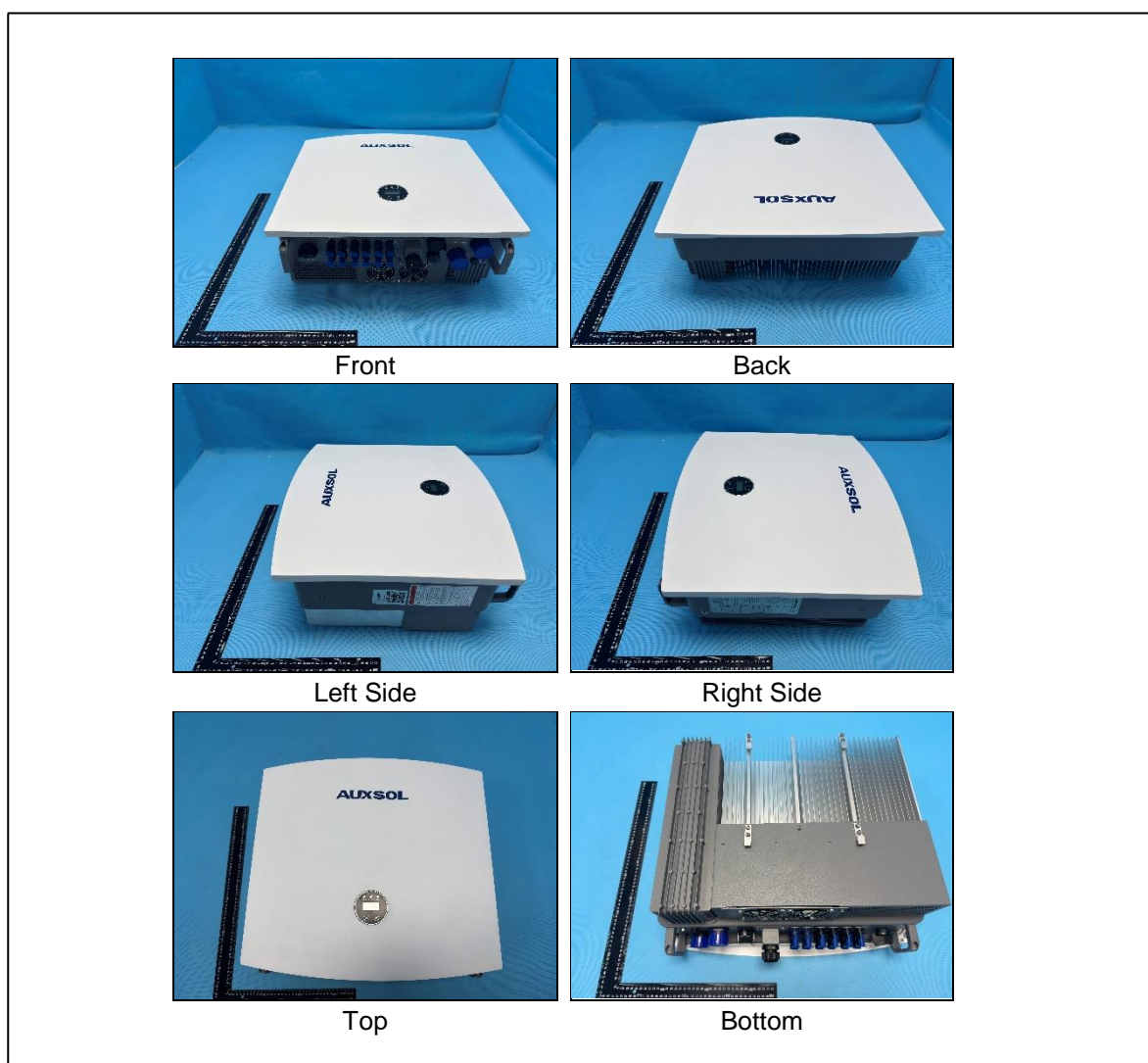
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Result of Re-use/Recycling/Recovery Assessment

Re-use/Recycling/Recovery	Re-use/Recycling (%)	Recovery (%)
Recycling/Recovery Targets under the 2012/19/EU WEEE Directive	80	85
Result of Assessment	81.5	91.6
WEEE requirement	PASS	PASS

Remark: The re-use/recycling and recovery targets in WEEE Directive are set for electrical and electronic equipment (EEE), and are not applicable to modules or components.

1. Appearance of the Product



2. Materials and Components to Be Selective Treated

According to Articles 8(2) and the Annex VII of the WEEE Directive, this product contains the following components and materials to be selective treated.

Component/Material	Photo No.	Size & Quantity	Weight (g)
Printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimeters	B82	1656.0 cm ² ×1	3829.0
	B83	924.0 cm ² ×1	2147.5
	B84	148.8 cm ² ×1	147.0
	B85	86.7 cm ² ×1	43.0
	B86	56.0 cm ² ×1	41.3
	B87	94.3 cm ² ×1	111.1
	B88	45.5 cm ² ×1	46.6
	B89	66.3 cm ² ×1	41.6
	B90	26.0 cm ² ×1	26.0
	B91	10.0 cm ² ×1	4.5
	B92	10.0 cm ² ×1	3.2
	B115	44.0 cm ² ×1	24.9

3. Disassembly Tree



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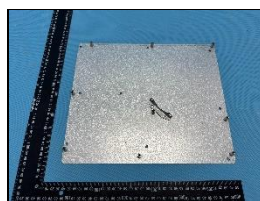
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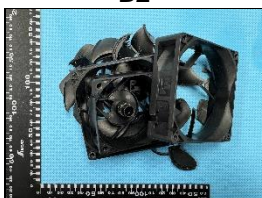
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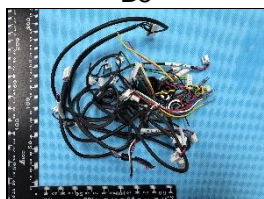
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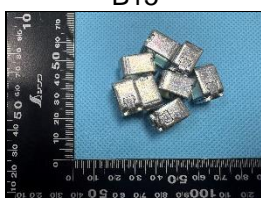
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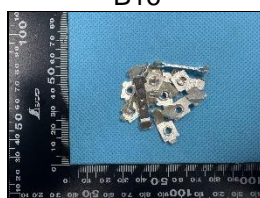
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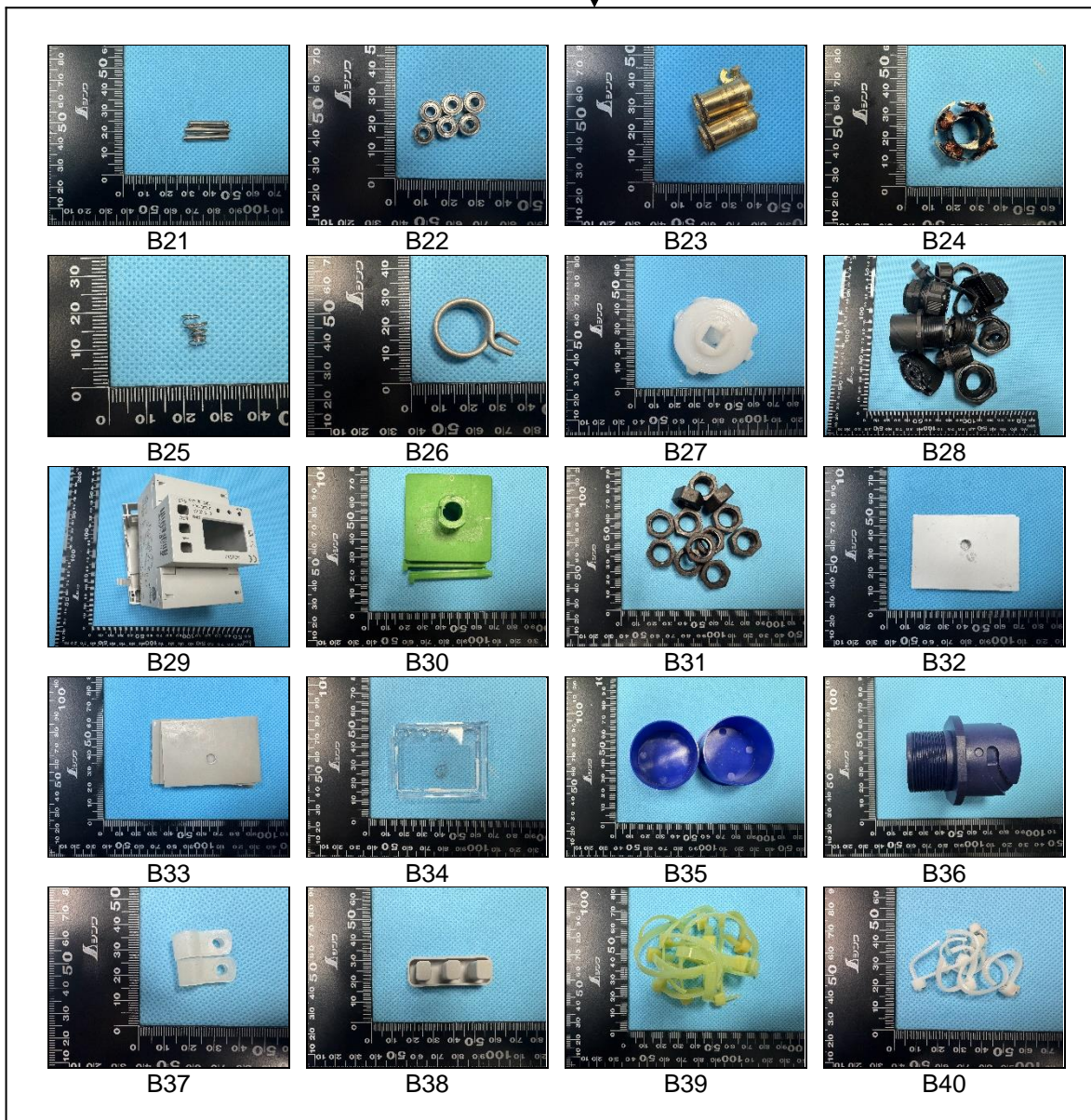
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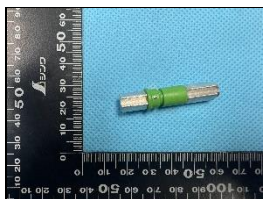
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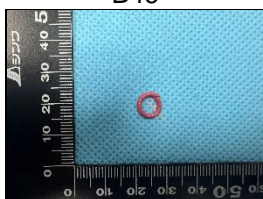
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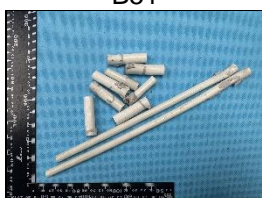
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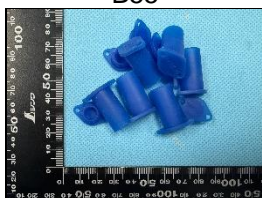
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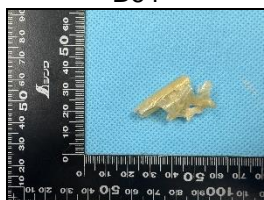
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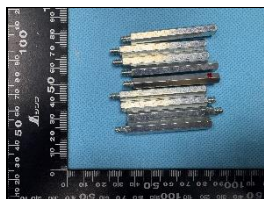


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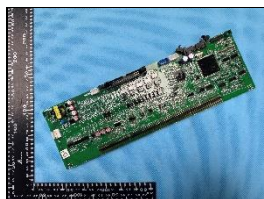
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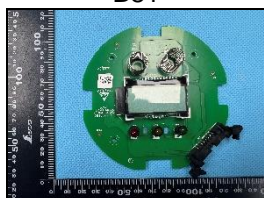
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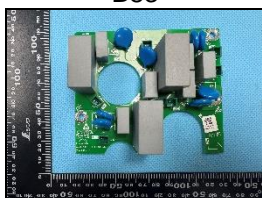
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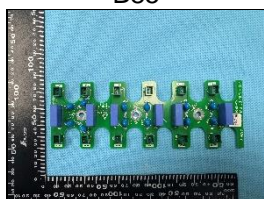
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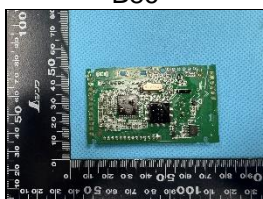
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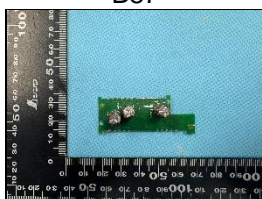
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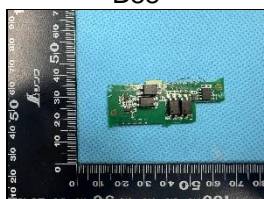
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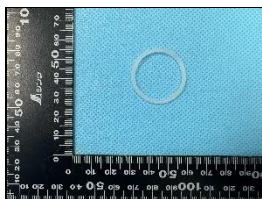
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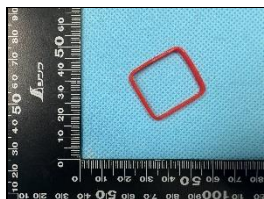
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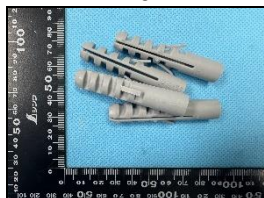
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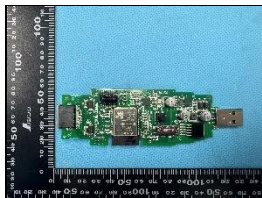
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4. Disassembly Procedure

The disassembly procedure taken here is in accordance with the treatment requirements under the Annex VII of the WEEE Directive. In addition, to consider economic and efficiency factors, manual operation and disassembly tools have been applied to separate the components and materials from this product in order to simulate the scenario at the treatment facility, and to achieve the objective that the separated components and materials can be re-used, recycled and recovered.

4.1 Connection technique:

For this product, the connection technology including as following:

Snap : 95
Screw : 209
Adhere : 20
Pressing Fits : 6

4.2 Disassembly tool:

The disassembly tools used for this product show as following:

Disassembly Tool	Pictures	Disassembly Tool	Pictures
Cross screwdriver		Pruning shears	

4.3 Disassembly time:

31 Minutes 43.5 Seconds



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5. Material and Recycling Information

According to the information declared by the applicant company, the material and recycling information for this product is described in the following table.

The re-use/recycling and recovery assessment for this product is based upon economic and efficiency considerations, and the waste treatment technologies and equipment that are most frequently available to the market.

Component/Material Composition		Photo No.	Weight (g)	Percent Weight	Recycling	Energy Recovery	Total Recovery
Printed circuit board (PCB)		B11, B82, B83, B84, B85, B86, B87, B88, B89, B90, B91, B92, B93, B94, B115	6474.3	16.4%	14.8%	0.0%	14.8%
Metal	Iron	B16, B17, B22	18.7	0.0%	0.0%	0.0%	0.0%
	Steel	B4, B25, B51, B81, B95, B96, B97, B98, B111, B112, B113, B114	1395.6	3.5%	3.5%	0.0%	3.5%
	Aluminium	B1, B2, B3, B116	15571.0	39.5%	38.7%	0.0%	38.7%
	Copper	B15, B19, B20, B21, B23, B26, B77, B107, B108, B109, B110	3098.0	7.9%	6.3%	0.0%	6.3%
	Metal with plastic	B5, B7, B8, B9, B12, B24, B42, B43, B44, B70, B75, B76, B117	2402.1	6.1%	4.4%	1.5%	5.8%
Plastic	Polyethylene (PE)	B57, B65, B66, B67, B68	11.6	0.0%	0.0%	0.0%	0.0%
	Polycarbonate (PC)	B14, B27, B29, B30, B34, B37, B38, B39, B40, B41, B49, B64	216.7	0.5%	0.5%	0.0%	0.5%
	Polyvinyl chloride (PVC)	B53, B54, B55, B69	144.2	0.4%	0.0%	0.3%	0.3%
	Elastomer/rubber	B13, B46, B47, B48, B50, B52, B56, B58, B59, B74, B103, B104	3610.3	9.2%	0.0%	8.2%	8.2%
	PA66+GF	B6, B10, B28, B35, B36, B45, B60, B61, B99, B100, B101, B102, B105, B106	897.3	2.3%	2.0%	0.0%	2.0%
	PET	B78, B79, B80	2.7	0.0%	0.0%	0.0%	0.0%
	PA66+GF	B31	16.7	0.0%	0.0%	0.0%	0.0%
Ceramic		B32, B33	92.8	0.2%	0.2%	0.0%	0.2%
Magnet		B18, B62, B63, B71, B72, B73	5488.9	13.9%	11.1%	0.0%	11.1%
Total			39440.9	100.0%	81.5%	10.1%	91.6%

Note:

Due to their insignificant weight and the difficulty of their separation in a manual operation, sticker, solder, paint and printing materials are not included in this assessment.

Plastic containing brominated flame retardants is not assessed in the list.

6. Re-use/Recycling and Recovery Rate Calculation

Re-use/Recycling & Recovery Rate using in the report are calculated as following formulas:

$$\text{Re-use/Recycling Rate} = \frac{\text{Re-use/Recycling Weight}}{\text{Product Total Weight}} \quad (\%)$$

$$\text{Recovery Rate} = \frac{\text{Re-use/Recycling Weight} + \text{Energy Recovery Weight}}{\text{Product Total Weight}} \quad (\%)$$

Total weight of the product is including the main product and accessories.



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7. Re-use/Recycling/Recovery Targets under the WEEE Directive

Minimum targets set for 6 categories EEE finished product from 15 August 2018 in directive 2012/19/EU:

Category	Re-use/Recycling (%)	Recovery (%)
1 st category (Temperature exchange equipment)	80%	85%
2 nd category (Screens, monitors, and equipment containing screens having a surface greater than 100 cm ²)	70%	80%
3 rd category (Lamps)	80%	/
4 th category (Large equipment (any external dimension more than 50 cm))	80%	85%
5 th category (Small equipment (no external dimension more than 50 cm))	55%	75%
6 th category (Small IT and telecommunication equipment (no external dimension more than 50 cm))	55%	75%

Remark: Re-use/Recycling and Recovery targets apply to EEE finished product listed in above table, and do not apply to modules/components.

8. ANNEX VII of WEEE Directive

Selective treatment for materials and components of waste electrical and electronic equipment:

- Polychlorinated biphenyls (PCB) containing capacitors in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) (1).
- Mercury containing components, such as switches or backlighting lamps.
- Batteries.
- Printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimeters.
- Toner cartridges, liquid and pasty, as well as colour toner.
- Plastic containing brominated flame retardants.
- Asbestos waste and components which contain asbestos.
- Cathode ray tubes.
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) or hydrofluorocarbons (HFC), hydrocarbons (HC).
- Gas discharge lamps.
- Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimeters and all those back-lighted with gas discharge lamps,
- External electric cables.
- Components containing refractory ceramic fibres as described in Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress Council Directive 67/548/EEC relating to the classification, packaging and labelling of dangerous substances .
- Components containing radioactive substances with the exception of components that are below the exemption thresholds set in Article 3 of and Annex I to Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation .
- Electrolyte capacitors containing substances of concern (height > 25 mm, diameter > 25 mm or proportionately similar volume).



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9. Recommendations for WEEE Directive Compliance

- In order to avoid the product not meeting the re-use/recycling/recovery targets regulated under the WEEE Directive and the regulations of EU countries, the applicant company should, when selecting material and components design, consider they can be easy to reuse and recycle. This consideration will lessen the impact of the required international environmental directives and also improve the product's competitiveness.
- It is recommended that the applicant company, when designing new product, especially where components and materials have a large weight ratio, should consider using recyclable materials in order to increase the product's re-use/recycling/recover ratio.
- The product should apply to the RoHS Directive (EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronics equipment). The hazardous substance specification in the Directive should be controlled in the homogenous material of this product.
- If a product has changed its product design, or materials or components employed, then the product should be reassessed and retested in accordance with the WEEE Directive for re-use/recycling/recovery assessment and RoHS for restricted/banned substances requirements.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ($w=0$) stated in ILAC-G8:09/2019.

*** End of Report ***



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