Test Report No.: CPSFTY/00050(AD4)/22
Date: 2025-05-22

TEST REPORT

Applicant's name and address	:	**Dyson Manufacturing Sdn. Bhd.** Plo.208, Jalan Cyber 14, Senai Industrial Estate IV, 81400 Senai, Johor, Malaysia
Manufacturer name and address	:	**Dyson Technology Limited** Tetbury Hill, Malmesbury, Wiltshire, SN16 0RP, United Kingdom
Contact number	:	+441666828211
Email address	:	Jon.Robinson@dyson.com
Website	:	www.dyson.com
Factory name and address	:	**1) Hi-P Philippines Technology Corporation** Bldg. S1, Lot 20, Phase 1B, First Philippine Industrial Park-Special Economic Zone, Tanauan City, 4232, Batangas, Philippines **2) Flextronics Manufacturing (Zhuhai) Co., Ltd.** B17 workshop, building C, No.1 Xintang Road, Jing An Town, Doumen District, Zhuhai, Guangdong, China Postal Code: 519180
Testing laboratory and address	:	**SGS (Malaysia) Sdn. Bhd.** No. 60, Jalan i-Park SAC 6, Taman Perindustrian i-Park SAC, 81400 Senai, Johor, Malaysia.
Email address	:	crs.ee.my@sgs.com
Test object/Model	:	Rechargeable Li-Ion Battery Pack/452646
Test specification/Standard	:	ST/SG/AC.10/11/Rev.7/Amend.1 Section 38.3
Summary of testing	:	The sample(s) tested comply with the requirements of UNITED NATIONS "Recommendations on the transport of dangerous goods" Manual of test and Criteria ST/SG/AC.10/11/Rev.7/Amend.1 Section 38.3
Remark	:	1) Add additional dark blue colourways of its front and rear battery cover. 2) Update the picture of the battery pack with additional colourways, dark blue of front and rear battery cover 3) Add remark of marking plates

LOH SOO KWAN
TEST ENGINEER

NOREEN NABILLA RISAL
REPORT REVIEWER

1. Function/Description:

Rechargeable Li-Ion Battery Pack

2. Ratings:

Items	Cell	Battery
Model	--	452646
Nominal voltage	--	14,68 V
Rated capacity	--	2,35 Ah
Mass	--	516 g
Li-ion, watt-hour rating	--	34,5 Wh
Li-metal, watt-hour rating	--	--
Standard charge current	--	1,1 A
Maximum charge current	--	2,2 A
Standard discharge current	--	0,47 A
Maximum discharge current	--	34,33 A
Recommended charge voltage	--	16,64 V
Maximum charge voltage	--	16,956 V
Discharge cut-off voltage	--	10,8 V

Remark: Batteries are charged at ambient temperature with 17,3 V and 1,1 A using recommended charger provided by manufacturer.

3. Test information:

Possible test case verdicts:
- Test case does not apply to the test object: N/A (Not Applicable)
- Test object does meet the requirement: P (Pass)
- Test object does not meet the requirement: F (Fail)

The tests were done in the Safety Laboratory of SGS Senai in Malaysia.
Test item was received on 2025-05-08
Tests were performed from N/A
Ambient temp.: 20 ± 5 ºC.
When mass loss does not exceed the values in Table 38.3.1, it shall be reported as “no mass loss”.

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Table 38.3.1: Mass loss limit

Mass M of cell or battery	Mass loss limit
$M < 1$ g	0.5 %
$1 \text{ g} \leq M \leq 75$ g	0.2 %
$M > 75$ g	0.1 %

Remark: The statement of conformity is based on the general consideration simple acceptance as stated in ILAC G8:09/2019.

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4. Amendment detail(s)

Amendment -1:

The original Test Report No.: CPSFTY/00050/22 dated 2023-01-11 was modified on 2023-02-24 to include the following addition and/or changes:

- Add alternative material for the battery pack's front and rear battery cover, Anoflex (Manufacturer: Omni-Plus System Pte Ltd, model: 3010-0Z0-ZZZ2) meanwhile the rest of the internal components, the performance and the functionality are remain the same.
- Add additional dark blue colourways of its front and rear battery cover.
- Update the picture of the battery pack with additional colourways, dark blue of front and rear battery cover.

After comparison, additional test as per 38.3.4.1, 38.3.4.2, 38.3.4.3, 38.3.4.4, 38.3.4.5. were considered necessary.

Test Report No.: CPSFTY/00050(AD1)/22, dated 2023-02-24, is not valid without original Test Report Ref. No.: CPSFTY/00050/22 dated 2023-01-11.

Amendment -2:

The original Test Report No.: CPSFTY/00050/22 dated 2023-01-11 and CPSFTY/00050(AD1)/22, dated 2023-02-24 was modified on 2023-11-03 to include the following addition and/or changes:

- Update minor design modification of its bottom battery cover with no changes in the electronic critical component list, PCB layout and PCBA schematic diagram
- Add and update additional black colourways of its front and rear battery cover.
- Update marking plate of battery pack model 452646 for factory Hi-P Philippines Technology Corporation.

After comparison, no additional test was considered necessary for above changes.

Test Report No.: CPSFTY/00050(AD2)/22, dated 2023-11-03, is not valid without original Test Report Ref. No.: CPSFTY/00050/22 dated 2023-01-11 and Test Report Ref. No.: CPSFTY/00050(AD1)/22 dated 2023-02-24.

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Amendment -3:

The original Test Report No.: CPSFTY/00050/22 dated 2023-01-11, CPSFTY/00050(AD1)/22 dated 2023-02-24 and CPSFTY/00050(AD2)/22 dated 2023-11-03 was modified on 2024-05-03 to include the following addition and/or changes:

- Remove factory, SKP BM Electronics Sdn. Bhd.
- Update factory address of Hi-P Philippines Technology Corporation
- Add new factory, Flextronics Manufacturing (Zhuhai) Co., Ltd.
- Update marking plate of factory, Hi-P Philippines Technology Corporation
- Add marking plate for factory, Flextronics Manufacturing (Zhuhai) Co., Ltd

After comparison, no additional test was considered necessary for above changes.

Test Report No.: CPSFTY/00050(AD3)/22, dated 2024-05-03, is not valid without original Test Report Ref. No.: CPSFTY/00050/22, dated 2023-01-11, Test Report Ref. No.: CPSFTY/00050(AD1)/22, dated 2023-02-24 and Test Report Ref. No.: CPSFTY/00050(AD2)/22, dated 2023-11-03.

Amendment -4:

The original Test Report No.: CPSFTY/00050/22 dated 2023-01-11, CPSFTY/00050(AD1)/22 dated 2023-02-24, CPSFTY/00050(AD2)/22 dated 2023-11-03 and CPSFTY/00050(AD3)/22 dated 2024-05-03 was modified on 2025-05-22 to include the following addition and/or changes:

- **Add additional dark blue colourways of its front and rear battery cover.**
- **Update the picture of the battery pack with additional colourways, dark blue of front and rear battery cover, refer to Attachment 1: Sample Photos**
- **Add remark of marking plates for identification of sample colourway, refer to Attachment 2: Marking Plates**

After comparison, no additional test was considered necessary for above changes.

Test Report No.: CPSFTY/00050(AD4)/22, dated 2025-05-22, is not valid without original Test Report Ref. No.: CPSFTY/00050/22, dated 2023-01-11, Test Report Ref. No.: CPSFTY/00050(AD1)/22, dated 2023-02-24, Test Report Ref. No.: CPSFTY/00050(AD2)/22, dated 2023-11-03 and Test Report Ref. No.: CPSFTY/00050(AD3)/22, dated 2024-05-03

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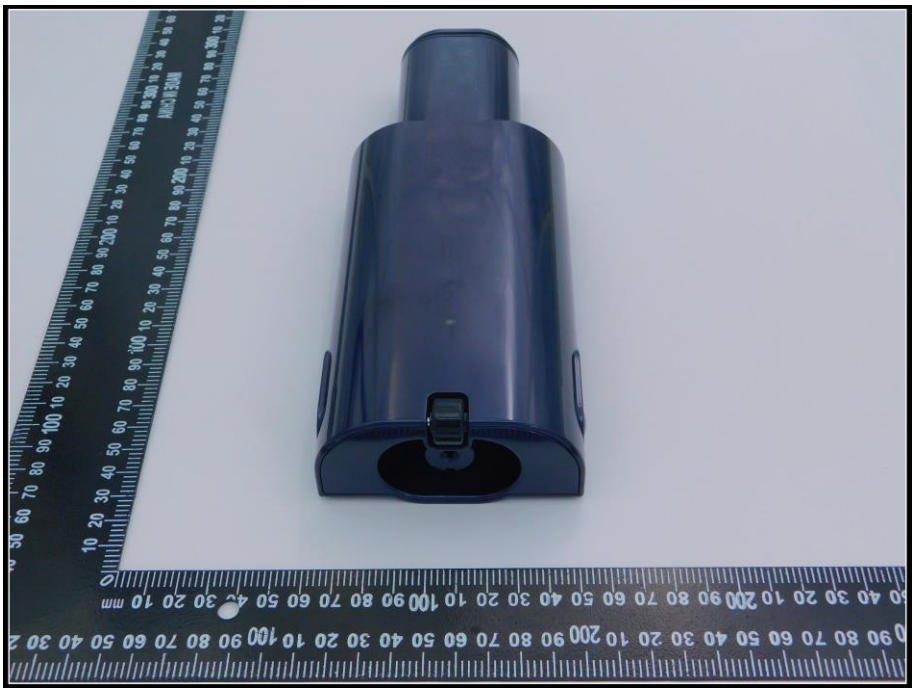
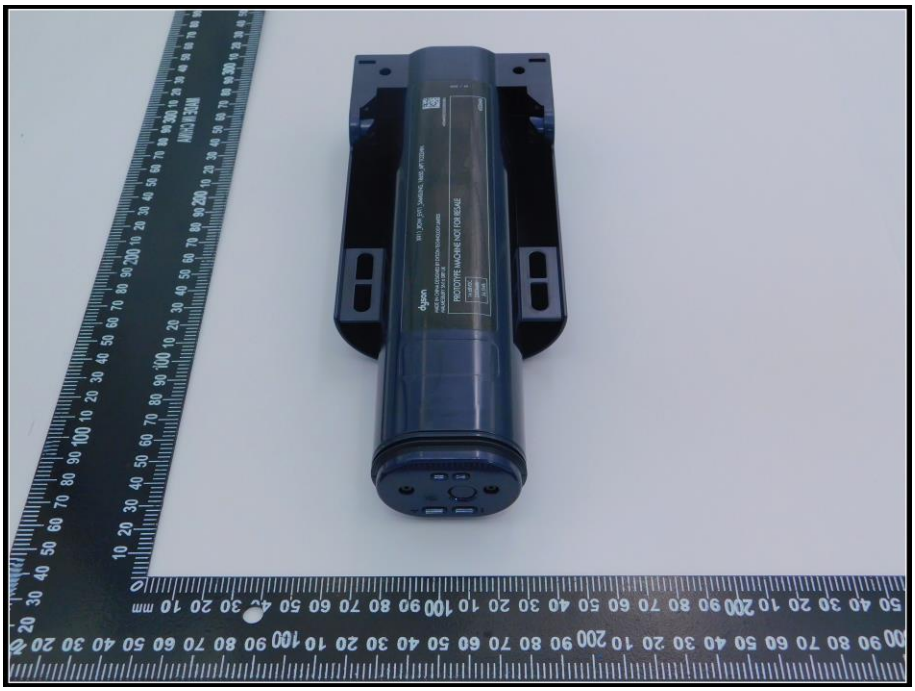
Attachment 1: Sample Photos

Whole Unit (Dark Blue Colourway)





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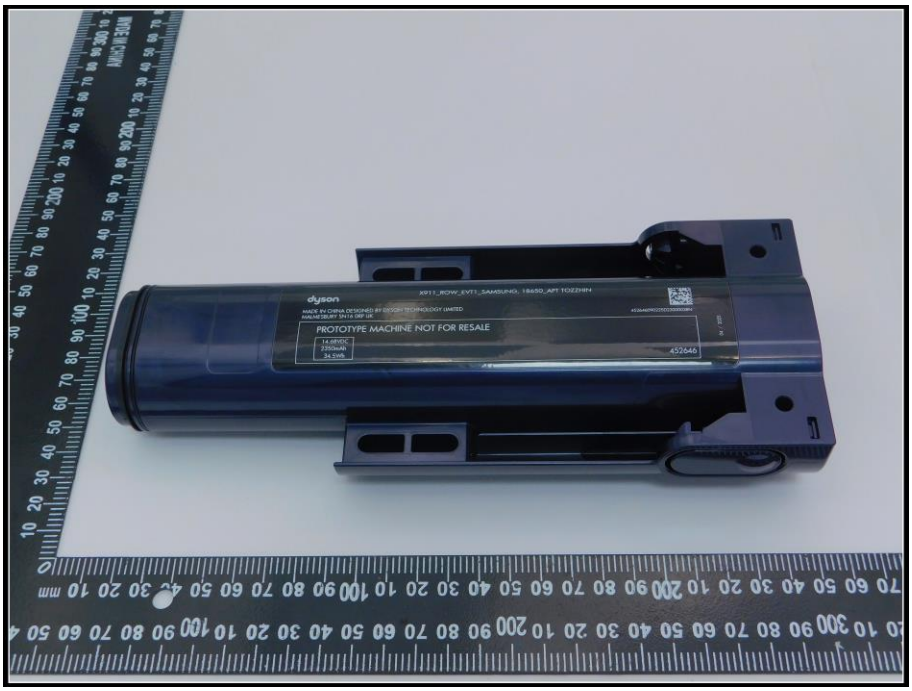

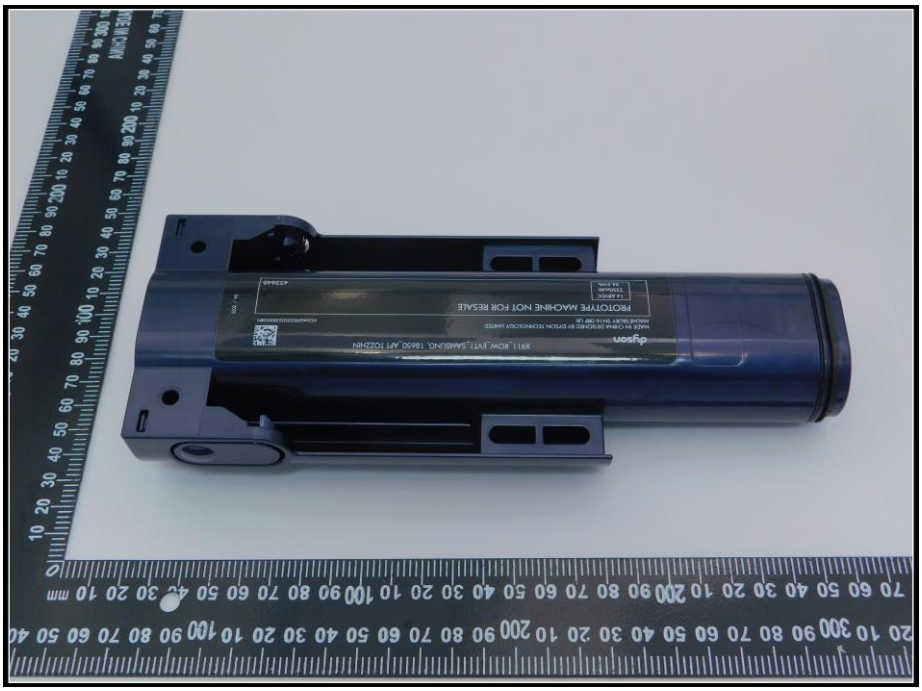

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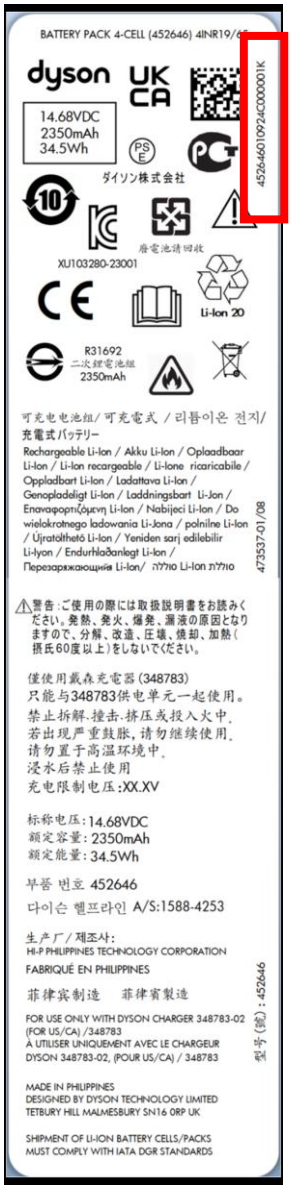
Attachment 2: Marking Plates



Remark:
The code “452646XXXXXXXXXXXXXX” contains information as below:

- 45264601, 45264602 represent iron colourway from factory, Hi-P Philippines.
- 45264603, 45264604 represent black colourway from factory, Hi-P Philippines.
- 45264605, 45264606 represent iron colourway from factory, Flextronics Zhuhai.
- 45264607, 45264608 represent black colourway from factory, Flextronics Zhuhai.
- 45264609, 45264610 represent dark blue colourway from factory, Flextronics Zhuhai.

- - - End of Test Report - - -