



# LRQA Independent Assurance Statement

## Relating to HYOSUNG ADVANCED MATERIALS CORPORATION's carbon footprint of product

This Assurance Statement has been prepared for HYOSUNG ADVANCED MATERIALS CORPORATION in accordance with our contract.

### Terms of engagement

LRQA was commissioned by HYOSUNG ADVANCED MATERIALS CORPORATION to provide independent assurance on the carbon footprint of Aramid Yarn ("the CFP") against the assurance criteria below to a limited level of assurance using LRQA's verification procedure, which is in accordance with ISO 14064-3:2019.

Our assurance engagement covered Aramid Yarn which was manufactured in Ulsan plant, and specifically the following requirements:

- Verifying conformance with ISO 14067:2018 *Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification*
- Evaluating the accuracy and reliability of data and information for the product GHG inventory

LRQA's responsibility is only to HYOSUNG ADVANCED MATERIALS CORPORATION. LRQA disclaims any liability or responsibility to others as explained in the end footnote. HYOSUNG ADVANCED MATERIALS CORPORATION's responsibility is for collecting, aggregating, analysing and presenting all the data and information relating to the CFP and for maintaining effective internal controls over the systems from which the CFP is derived. Ultimately, the CFP has been approved by, and remains the responsibility of HYOSUNG ADVANCED MATERIALS CORPORATION.

### LRQA's opinion

Based on LRQA's approach, nothing has come to our attention that would cause us to believe that HYOSUNG ADVANCED MATERIALS CORPORATION has not, in all material respects:

- Met the requirements above
- Disclosed accurate and reliable data and information as summarized in Table 1 below.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

**Note:** The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

### LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Conducted site tours of the facilities and reviewed processes related to the control of GHG emissions data and records.



- Verified historical GHG emissions data and records at an aggregated level.
- Auditing HYOSUNG ADVANCED MATERIALS CORPORATION's data management systems to confirm that there were no significant errors, omissions or mis-statements in the CFP. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key people responsible for quantification of the CFP.
- Checking whether secondary data used were from credible and/or recognized sources and transposed correctly into the product GHG inventory.

### **LRQA's recommendations**

- HYOSUNG ADVANCED MATERIALS CORPORATION should improve the quality of data. For example, it needs to collect site-specific data or apply emission factors provided by suppliers in consideration of the contribution of PPD and TPC to the CFP.

### **LRQA's standards, competence and independence**

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* and ISO/IEC 17021 *Conformity assessment – Requirements for bodies providing audit and certification of management systems* that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification engagement is the only work undertaken by LRQA for HYOSUNG ADVANCED MATERIALS CORPORATION and as such does not compromise our independence or impartiality.

Dated: 19 June 2022

Byung-Gil Lim  
LRQA Lead Verifier  
On behalf of LRQA  
17th Floor, Sinsong Building, 67 Yeouinaru-ro, Yeongdeungpo-gu, Seoul, Korea

LRQA reference: SEO0001022





**Table 1. Summary of the CFP of Aramid Yarn**

Product and model no.	Aramid Yarn
Manufacturer and location	Ulsan Plant, HYOSUNG ADVANCED MATERIALS CORPORATION Located at 30, Napdo-ro, Nam-gu, Ulsan, Republic of Republic of Korea.
GHG inventory period	From 01 December 2020 to 30 November 2021
System boundary	Cradle-to-Gate and transportation
Declared unit	Aramid Yarn 1kg
Carbon footprint	29.26 kgCO <sub>2</sub> eq per kg
Note : The abnormal datasets caused by expanding the spinning process and newly establishing the PPD refining process during the period of December in 2020, and January, April, July and August in 2021 were excluded from the CFP quantification.	

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