

Sustainable Material Management

Raw Material Prioritization Assessment

Avary identifies critical raw materials based on their share of total procurement cost and usage volume. Materials with a relatively high cost contribution are subject to prioritization for further analysis. For example, in 2024, six material categories collectively accounted for nearly half of total procurement value: flexible copper-clad laminate (FCCL), copper-clad laminate (CCL), polypropylene (PP) film, gold salts, steel sheets, and chemical solutions.

Raw Material Traceability

Avary implements a risk-based traceability mechanism for raw material sources. When international political and economic conditions, geopolitical developments, or other environmental and social risks pose potential impacts on specific material supplies, we initiate source audits and risk assessment procedures. For instance, in response to the Russia-Ukraine conflict, we conducted traceability and supply stability assessments for key metals such as copper and nickel to ensure that these materials were not subject to sanctions or export restrictions, thereby maintaining uninterrupted production.

Reducing Environmental and Social Impacts of Raw Materials

By incorporating recycled materials, we effectively reduce carbon emissions, water consumption, and heavy metal pollution associated with upstream mining and refining processes. On the social front, we require all suppliers to sign the Supplier Code of Conduct, committing to the prohibition of child labor, forced labor, discrimination, and hazardous working conditions, while encouraging alignment with RBA standards. We also conduct environmental and social responsibility audits and surveys for high-risk suppliers to ensure that production sources do not negatively impact the environment or society.

Recycled Material Usage

We have actively adopted the use of recycled and third-party certified raw materials. For example, in the case of recycled gold salts, all current suppliers have obtained third-party certification for recycled content, such as ISO 14021 or UL 2809. In addition, we have set annual usage rate targets for various recycled materials. Targets for 2025 include:

- Solder paste: 95% (up from 89% in 2024)
- Gold salts: 100% (up from 96% in 2024)
- Copper powder: 100% (up from 99% in 2024)

For more details on 2024 recycled material usage and targets, please refer to the 2024 Avary Holding Sustainability Report.

Internal Stakeholder Training

We regularly conduct compliance and sustainable procurement training on raw materials to departments such as Supply Chain and Quality Assurance, aiming to strengthen company-wide awareness and accountability on sustainable material issues.

2024 Material Usage and Recycled Material Ratio

Material	Unit	Usage	Usage Ratio of Recycled Materials (%)
Aluminum	kg	156,680	0
Cobalt	kg	-	-
Nickel	kg	335,461	0
Lithium	kg	-	-
Titanium	kg	-	-
Plastic (thermoplastic materials only, no packaging)	kg	4,111,000	0