

Sustainability Performance Report 2025



Crown Seal Public Company Limited

5 Soi Rangsit–Nakhon Nayok 46, Prachathipat Subdistrict, Thanyaburi District,
Pathum Thani 12130, Thailand

Reporting Period End Date: 31 December 2025

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Sustainable Development Committee

Approved by: *Jiraporn*

(Mrs. Jiraporn Nuthong)

President

Company: Crown Seal Public Company Limited

Stock Symbol: CSC **Industry Group:** Industrial Products **Market Capitalization Group:** Market Cap

Environmental Dimension

Environmental Management Overview

(The policy is integrated and covers the Quality Management System, Environmental Management System, Good Hygiene Practices (GHP), Hazard Analysis and Critical Control Points (HACCP), Occupational Health and Safety Management System, and Food Packaging Safety Certification System.)

Environmental Practices: The Company operates in compliance with the requirements of the ISO 14001-certified Environmental Management System (EMS), which has been formally certified. Key elements include:

- Environmental Aspect Identification and Assessment
- Compliance Obligations, including the control and monitoring of wastewater discharged from the factory and air emissions from industrial stacks, among others
- Operational Planning and Control, including energy management, water resource management, and off-site waste disposal, among others

Environmental Sustainability Issues: Four key material issues have been identified, including:

- E1: Climate Change Strategy
- E2: Electricity and Resource Consumption
- E3: Waste and Environmental Pollution Management
- E4: Product Responsibility

E1: Climate Change Strategy

■ Greenhouse Gas Management Plan

- (1) Short and Medium-Term: Installation of solar rooftop systems within the Company's facilities
- (2) Annual Short-Term Initiative: Energy Efficiency Improvement Projects (in alignment with E2: Electricity and Resource Consumption)
- (3) Medium- and Long-Term: Reforestation and land-based carbon removal initiatives

■ Greenhouse Gas (GHG) Emissions Reduction Target

Carbon Neutrality in accordance with ISO 14068-1:2023 (Part 1)

The Company aims to achieve Carbon Neutrality in alignment with ISO 14068-1:2023 (Part 1) by ensuring that the volume of carbon emissions released into the atmosphere is balanced by an

equivalent amount of carbon removed or absorbed through reforestation initiatives and the utilization of renewable energy over a 20-year period.

Residual greenhouse gas emissions that cannot be further reduced will be offset accordingly.

The target year for achieving Carbon Neutrality is A.D. 2050.

Note: The Company will determine its Carbon Neutrality target, and GHG reduction base year once sufficient data is available, based on the CFO assessment.

■ Implementation Overview

GHG Emissions Scope	Emissions Base Year	Short-Term Target (5 Years from Base Year)	Long-Term Target	Certification
Scope 1 and Scope 2	2024 GHG Emissions: 23,524 tCO ₂ e	2025–2030 (5-Year Period): Annual GHG emissions reduction target of 4.17% (vs. 2024 base year).	Reduction / Removal / Offset <ul style="list-style-type: none"> • Removals: Reforestation initiatives targeting 90% of base year emissions • Offset: Carbon credit offsets for the remaining 10% 	ISO 14068-1 (Part 1): Not yet certified

■ Performance Outcomes

(1) Organizational Greenhouse Gas Emissions

Total Greenhouse Gas (GHG) Emissions	2022	2023	2024
Total Scope 1 and Scope 2 Emissions (tons of carbon dioxide equivalent, tCO ₂ e)	24,902	Not calculated	23,524
Scope 1 Emissions (tons of carbon dioxide equivalent, tCO ₂ e)	13,752	Not calculated	13,614
Scope 2 Emissions (tons of carbon dioxide equivalent, tCO ₂ e)	11,150	Not calculated	9,910
Scope 3 Emissions (tons of carbon dioxide equivalent, tCO ₂ e)	57,126	Not calculated	77,216

Performance Analysis:

- Scope 1 greenhouse gas emissions in the reporting year 2024 decreased by 138 tons of carbon dioxide equivalent (tCO₂e), or 1.0%, compared with 2022.
- Scope 2 greenhouse gas emissions in 2024 decreased by 1,240 tons of carbon dioxide equivalent (tCO₂e), or 11.12%, compared with 2022. This reduction was primarily attributable to the installation of rooftop solar systems and a decrease in production volume.

In 2024, total production was 10,690 million caps, compared with 12,626 million caps in 2022.

- Scope 3 emissions for 2022 show significant variance due to differences in calculation methodologies. In 2022, emissions were estimated using a standardized software tool based on financial expenditure data.

In contrast, the 2024 calculation was based on actual procurement data, using the physical weight of imported and purchased raw materials. Furthermore, Base Resin—one of the three primary raw materials—was not included in the 2022 Scope 3 calculation.

- Combined Scope 1 and Scope 2 greenhouse gas emissions decreased by 1,378 tons of carbon dioxide equivalent (tCO₂e), representing a 5.53% reduction.

(2) Organizational Greenhouse Gas Reduction and Removal Performance

Description	2022	2023	2024
Total Greenhouse Gas Reduction for Scope 1 and Scope 2 (tCO ₂ e)	-	-	1,378
Total Greenhouse Gas Removal (tCO ₂ e)	-	-	0

Notes:

(1) The B.E. years presented in the table represent the reporting year, and the assessment will be conducted in the following year.

(2) Data for 2022 and 2023 are not presented in the table, as 2024 has been designated as the base year for the implementation of the greenhouse gas reduction program.

E2: Electricity & Resource Consumption

■ Electricity and Resource Management Plan

Energy Management – 2025

(Based on the Energy Management Program Activities)

- Installation of Solar Rooftop Phase 2 (renewable energy) to reduce electricity consumption from grid (fossil-based) sources.
- Installation of inverter motor blowers to improve energy efficiency in proportion to operational demand.
- Replacement of LED lighting to enhance energy savings at the warehouse, Building 5, Building 6, and the Metal Cap Production Plant (Floor 1 and 2).
- Optimization and control of operations for Electric Air Booster Line 28 STD Line 6.
- Scheduled control of air-conditioning systems (on/off timing based on actual usage) in the locker room of the Plastic Cap Production Plant.
- Reduction of air leakage from air compressors at the Metal Cap Production Plant and Sheet Printing unit.
- Overhaul of Ovens L3 and L9, including insulation enhancement and sealing of leakage points to reduce heat loss.

Note: In 2026, electricity consumption performance will be reported in a quantitative analytical format, with pre- and post-implementation comparisons to support public disclosure.

(1) Water Conservation

- Conserve water usage through the improvement of sanitary equipment (project implemented during 2023–2024).
- Promote water-saving practices through ongoing awareness campaigns (conducted annually).

(2) Paper Consumption Control

- Implement electronic systems to reduce paper usage (data monitoring initiated to establish reduction targets in 2026).

■ Performance Outcomes

1) Electricity Energy Management

Description	2023	2024	2025
Total Electricity Consumption (kWh)	27,260,560	28,643,959	26,464,570
Average Workforce Headcount (Permanent, Temporary, Security, and Housekeeping Personnel) (persons)	1,005	1070	998
Total Electricity Consumption per Employee (kWh per person per year)	27,125	26,770	26,517

2) Water Management

2.1) Company Water Consumption by Source

Description	2023	2024	2025
Total Water Consumption (cubic meters, m ³)	79,932	78,168	61,280

Note: The Company’s water source is solely from the municipal water supply.

2.2) Total Wastewater Discharge by Receiving Destination

Description	2023	2024	2025
Total Volume of Wastewater Discharged (m ³)	43,252	39,920	31,104

Note: The total wastewater discharged consists of effluent from the production facility (120 m³ treatment system) and office wastewater (100 m³ treatment system).

2.3) Water Withdrawal and Wastewater Discharge Volumes

Discharge Destination	2023	2024	2025
Water Withdrawal (cubic meters, m ³)	-	-	-
Water Discharge (cubic meters, m ³)	-	-	-

Note: Water consumption is sourced solely from municipal supply, with no withdrawal of surface water or groundwater from natural water bodies. **

3) Paper Usage Management

3.1) Total Paper Consumption (Project to be initiated in 2026)

รายการ	2023	2024	2025
Office Paper Usage (reams)	-	-	-
Paper Usage in Manufacturing Operations (reams)	-	-	-
Total Estimated Paper Usage	-	-	-

E3: Waste and Pollution Management

■ Waste and Pollution Management Plan

- (1) Hazardous waste is delivered to certified treatment contractors for proper recovery and reuse (ongoing).
- (2) Monitor and control water and air emissions in compliance with applicable regulations.

■ Performance Outcomes

1) Total Waste and Hazardous Waste Generation of the Company

Generation Source	2023	2024	2025
Metal Closure Manufacturing Facility (tons)	690.05	734.81	680.76
Plastic Closure Manufacturing Facility (tons)	9.79	3.04	2.12
Infectious Medical Waste from the On-site Clinic (tons)	2.74	2.77	0.26
General Waste from Non-production Areas (tons)	702.58	740.62	683.14

2) Non-recycled Waste Volume

Generation Source	2023	2024	2025
Non-recoverable Metal Closure Production Waste (tons)	3,709.86	3,810.18	3,524.98
Non-recoverable Plastic Closure Production Waste (tons)	363.94	364.21	368.82
General Waste from Non-production Areas (tons)	72.8	72.8	90
Total Non-recyclable Waste (tons)	74.86	72.8	90

3) Total Costs Incurred from Environmental Fines and Regulatory Penalties

Generation Source	2023	2024	2025
Fines Related to Water Pollution Discharges	-	-	-
Fines Related to Air Emissions	-	-	-
Fines for Waste Pollution	-	-	-

4) Percentage of Operational Sites Covered by the Environmental Management System (EMS)

Environmental Management System (EMS)	Area	Percentage
Energy Management	Factory Area	100
Water Resource and Water Quality Management	Office and Factory Areas	100
Air Emission Control	Factory Area	100
Waste Management	Office and Factory Areas	100

Note: Each environmental management aspect is assessed to ensure coverage across all organizational areas.

E4: Responsible for our products

■ Product Responsibility Management Plan

Control product quality to reduce final product losses (destruction). (Data tracking initiated to establish targets)

■ Performance Outcomes

รายการ	2023	2024	2025
Total Products Returned by Customers and Destroyed (kg)	66,519	79,047	42,359

Social Dimension

Environmental Sustainability Issues: Four key material topics have been identified as follows:

- S1 Respect for Human Rights and Fair Labor Practices
- S2 Developing Employee Potential
- S3 Motivating and Retaining Employees
- S4 Occupational Health and Safety (OHS)
- S5 Stakeholder Engagement

S1: Respect for Human Rights and Fair Labor Practices

■ **Principles and Standards Applied:** Thai Labour Standard – Thai Social Responsibility Standard (TLS 8001-2010), issued by the Ministry of Labour.

■ Human Rights and Responsible Labor Management Plan

- (1) Prevent and ensure that there is no discrimination, forced labor, harassment, or any form of human rights violations throughout the value chain, while providing appropriate and accessible grievance channels and complaint mechanisms.
- (2) Provide training to employees on human rights and non-discrimination and conduct employee surveys on labor practices and human rights.

■ Performance Outcomes

1) Number of Human Rights Law and Regulatory Violations

Violation Items	2023	2024	2025
Number of Human Rights Law and Regulatory Violations	0	0	0
Number of Significant Labor Disputes (cases)	0	0	0
Number of Consumer/Customer Rights Violations (cases)	0	0	0
Number of Supplier Rights Violations (cases)	0	0	0
Number of Community or Social Disputes (cases)	0	0	0
Number of Cybersecurity or Customer Data Breach Incidents (cases)	0	0	0

2) Commitment to Fair Labor Practices

2.1) Employee Distribution by Gender

Gender		2023	2024	2025
Male Employees	Employees	559	568	574
	Percentage	59.09%	59.41%	59.54%
Female Employees	Employees	387	388	390
	Percentage	40.91%	40.59%	40.46%
Total Employees	Employees	946	956	964
	Percentage	100%	100%	100%

2.2) Employee Classified by Age (Male)

Age Group		2023	2024	2025
Under 30 Years Old	Employees	153	161	162
	Percentage	27.37%	28.35%	28.22%
Age Group: 30–50 Years	Employees	287	288	286
	Percentage	51.34%	50.70%	49.83%
50 Years and Above	Employees	119	119	126
	Percentage	21.29%	20.95%	21.95%

Employee Classified by Age (Female)

Age Group		2023	2024	2025
Under 30 Years Old	Employees	111	120	106
	Percentage	28.68%	30.93%	27.18%
Age Group: 30–50 Years	Employees	205	191	206
	Percentage	52.97%	49.23%	52.82%
50 Years and Above	Employees	71	77	78
	Percentage	18.35%	19.85%	20.00%

2.3) Employment of Persons with Disabilities

Description		2023	2024	2025
Male persons with Disabilities	Employees	-	1	1
	Percentage	-	0.176%	0.174%
Female persons with Disabilities	Employees	-	-	N/A
	Percentage	-	-	-
Total persons with Disabilities	Employees	-	1	1
	Percentage	-	0.102%	0.104%
Contribution to the Fund for the Empowerment of Persons with Disabilities		Yes	Yes	N/A

Note: In 2025, the Company provided support to 9 persons with disabilities through Section 35 initiatives, including product procurement and massage services, thereby fulfilling its legal obligations and qualifying for exemption from contributions to the Disability Fund.

3) Employee Survey Results on Labor Practices and Human Rights
 – Not implemented in 2025 –

S2: Employee Capability Development

■ **Employee Capability Development Plan**

- (1) Establish annual training programs, both internal and external, including on-the-job training (OJT.)
- (2) Implement succession planning and establish defined career paths to serve as a framework for competency development.
- (3) Establish the CSC School to provide production employees with technical knowledge and skills development opportunities by appointing experienced internal experts as trainers to deliver structured training programs.

■ **Performance Outcomes**

1. Training and Development Outcomes

Description	2023	2024	2025
Number of Employee Training Plans (courses)	87	72	50
Total number of training courses conducted	135	105	137
Training participation rate (%)	155	146	274

Note: Training requests exceeded the planned schedule.

2. CSC School Program Outcomes

Description	2023	2024	2025
Total number of employee training courses planned	21	19	19
Actual number of training courses conducted	21	19	19
Percentage of Employees Trained (%)	100	100	100

Note: The actual number of training courses conducted varies by recruitment cycle and hiring volume in each period.

S3: Employee Engagement and Retention

■ Employee Capacity Development Plan

Implement employee engagement initiatives alongside activities aligned with the Happy Workplace framework to promote employee well-being and workplace satisfaction.

- Establish long-service recognition awards for employees with 10, 15, 20, and 25 years of service to strengthen employee motivation and organizational engagement.
- Income-Generating and Career Development Activities (Happy Money Initiative) – August
- Happiness Journey Program – Year 2 (August)

■ Performance Outcomes

1. Employee Turnover

Length of Service of Employee Turnover	2023	2024	2025
0-3 years	25	29	26
3-7 years	13	8	7
7-15 year	5	13	1
Grand Total	43	50	34

S4: Health and Safety in the Working Environment

■ Occupational Health and Safety (OHS) Management Plan

1. Organize activities to reduce workplace accidents and strengthen the safety culture under the supervision of the Safety Department.

- Zero Severe Accident 2025
- CSC Safety Culture Organization
- 6S/Safety Patrol / Safety Standard Line
- SAFETY & ENERGY DAY
- Job Safety Analysis – Low Frequency (JSAL) / Kiken Yochi Training – High Risk (KYTH)
- Promote the reporting of Unsafe Acts and Unsafe Conditions by employees.
- Promote employee participation in responding to questions in the SHE & Health Magazine.
- Promote safe travel campaigns during the Songkran and New Year holiday periods.

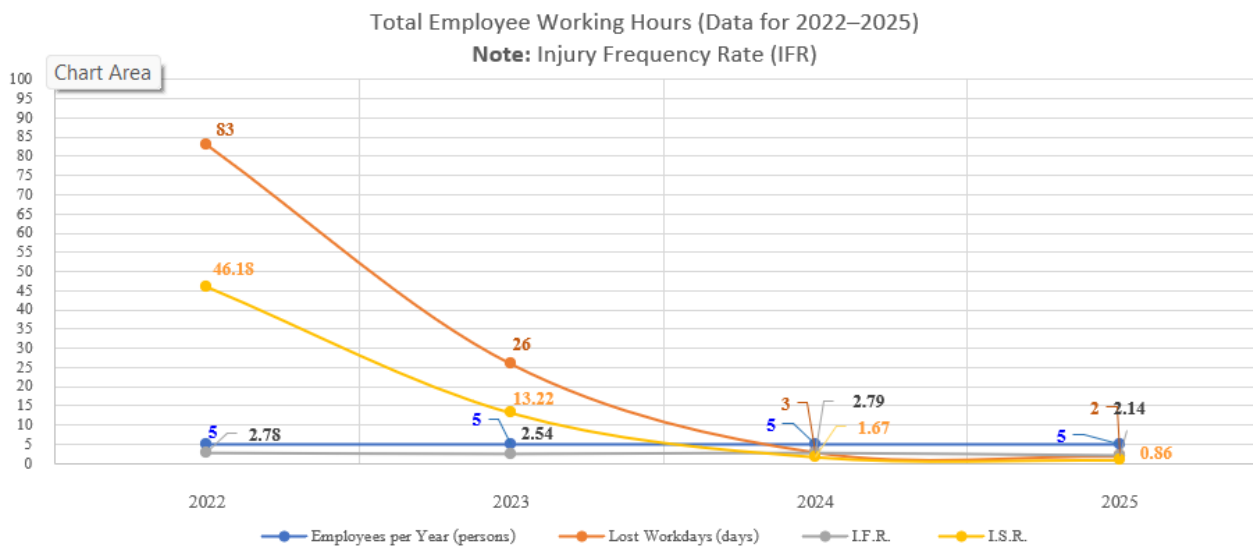
2. Organize health promotion activities to prevent occupational illnesses, alongside initiatives aligned with the Happy Workplace concept, under the programs led by the Labor Relations Department.

- Participate in the Healthy Organization Development Program under the Federation of Thai
- Industries Network, supported by Thai Health, to promote quality of life among working - age employees.
- "Happiness Massage" Program (Every Tuesday throughout 2025)
- Health Promotion Activity: "Goodbye Calories" Campaign (1 April – 31 May 2025)
- CSC Workout Balance Program (Happy Friday Zumba), twice monthly from February to November.
- "Stretch and Relax" Activity (Traditional Therapeutic Massage) – October
- Friendly Badminton Tournament (Crown Seal & Green Sport) – November

■ **Performance Outcomes**

1. Report on Workplace Accidents, Incidents, and Occupational Illnesses

Injury Severity Rate (ISR)



Between 2022 and 2025, Crown Seal Public Company Limited achieved measurable improvements in safety performance. The Injury Severity Rate (ISR) declined consistently, along with a reduction in lost workdays, demonstrating the effectiveness of the Company’s occupational health and safety management system.

The Company continues to advance toward a proactive, prevention-driven approach, with a long-term commitment to achieving Zero Accidents.

2. Annual Health Check-up Report

Employee Health Indicators	2023	2024	2025

Employees with Abnormal Health Results (persons)	681	692	677
Employees with Pre-existing Medical Conditions (persons)	216	205	198

Remark:

- Abnormal conditions refer to annual health examination results that exceed established medical reference standards, such as elevated blood sugar or cholesterol levels.
- Employees identified with pre-existing medical conditions, including diabetes, chronic kidney disease, hypertension, allergic conditions, and hyperuricemia (gout), among others.

S5: Stakeholder Engagement

■ Stakeholder Engagement and Participation Plan

Crown Seal Public Company Limited is committed to building strong stakeholder partnerships and creating measurable social impact for sustainable communities. Key activities implemented during the reporting period include:

- **Structured Community Dialogue:** Conducted joint committee meetings with surrounding communities near the power plant to disclose operational performance, enhance transparency, and systematically collect stakeholder feedback on social and environmental matters.
- **Disaster Relief Support:** Provided flood relief assistance through Rangsit Municipality, Pathum Thani Province, supporting affected households and reinforcing the Company's commitment to community resilience (aligned with SDG 11).
- **Circular Economy Collaboration:** Partnered with the Thailand Institute of Scientific and Technological Research (TISTR) to pilot recycled plastic asphalt concrete, improving roadside infrastructure while advancing circular economy practices and reducing plastic waste (aligned with SDG 12 and SDG 13).
- **Public Health Contribution:** Organized four corporate blood donation campaigns in 2025 to support national healthcare systems and promote employee civic engagement (aligned with SDG 3).

- **Environmental Stewardship Initiative:** Conducted the “55 Years of Crown Seal – Planting Trees to Increase Green Lungs” program in February to enhance carbon sequestration and environmental conservation efforts (aligned with SDG 13 and SDG 15).
- **Cultural and Social Support:** Organized the Company’s 55th Anniversary Kathin Ceremony in November, providing financial contributions to support religious institutions and preserve local cultural heritage.

■ **Performance Outcomes**

Stakeholder Engagement Performance Indicators	2023	2024	2025
Number of Community and Social Engagement Activities (projects)	-	-	6

Note: The financial and non-financial benefits of these initiatives are currently not quantifiable.

Governance and Economic Dimension

Governance and Economic Dimension: The Company has identified five key material topics as follows:

- G1:** Code of Conduct & Anti-Corruption
- G2:** Risk and Crisis Management
- G3:** Customer Relationship Management
- G4:** Tax Strategy
- G5:** Social and Environmental Business Innovation

G1: Code of Conduct & Anti-Corruption

■ **Implementation Approach:**

Develop and enforce the *Code of Conduct of Crown Seal Public Company Limited*, ensuring effective communication to employees at all levels. The Company also establishes formal whistleblowing channels to enable the reporting of suspected misconduct, unethical behavior, or potential corruption cases.

G2: Risk and Crisis Management

■ **Implementation Approach:**

Develop the Risk Management Manual of Crown Seal Public Company Limited and establish a comprehensive Business Continuity Plan (BCP) covering five key scenarios, including:

1. Natural Disasters
2. Fire or Explosion Incidents

3. Protests or Riot Events
4. Epidemics or Emerging Infectious Diseases
5. Cybersecurity Threat Incidents

G3: Customer Relationship Management

■ Implementation Approach:

1. The Company has established dedicated Sales and Marketing functions to effectively respond to customer needs. In addition, a Technical Service and Customer Satisfaction unit provides after-sales technical support to address any issues arising from the use of the Company's products.
2. The Company conducts customer satisfaction surveys for both domestic and international customers. For the period 2023–2025, the Company has set a target satisfaction score of 89%. Survey results are systematically analyzed to drive continuous improvement and enhance overall customer satisfaction

G3: Customer Satisfaction Survey Results

Customer Satisfaction Survey Topics		2023	2024	2025
Domestic Customers	Overall Customer Satisfaction	90.4	92.8	95.3
	Product Quality Performance	89.2	92.4	95.2
	Product Development Capability	88.0	90.1	92.9
	On-time Delivery Performance	91.4	93.5	96.0
	Service Quality	91.1	93.6	95.7
International Customers	Overall Customer Satisfaction	92.9	89.8	87.9
	Product Quality Performance	92.0	91.7	89.0
	Product Development Capability	88.7	86.7	85.0
	On-time Delivery Performance	92.0	91.1	86.4
	Service Quality	96.0	89.0	89.7

Note: Any satisfaction score below the established target will be analyzed for improvement, and corrective actions will be tracked and evaluated in the subsequent assessment period.

G4: Tax Strategy

■ **Implementation Approach:** The Company has formally adopted a Tax Policy and maintains strict compliance with all relevant tax laws and regulations. All tax obligations are fulfilled accurately

and within the prescribed deadlines. No tax-related disputes, penalties, or regulatory complaints have been reported.

■ **Performance Outcomes**

Unit: THB Million

Description	2023	2024	2025
Actual Tax Paid	44,922	74,878	61,431
Effective Tax Rate	19.43	20.88	21.63
Tax Incentives Received (BOI)	2,859	464	809

G5: Social / Environmental Business Innovation

Implementation Approach:

The Company has established a Research and Development (R&D) unit to develop value-added products that enhance user convenience (social benefit) and/or are environmentally friendly.

Performance Results:

The Company has developed an aseptic plastic cap product in the form of a **“Tethered Cap”**, an innovative cap design that remains attached to the bottle through a specially engineered plastic strip that is both durable and flexible. This innovation complies with European regulations and global market requirements.

The key benefits of this product include:

- **Reduction of plastic cap litter:** The tethered design minimizes the risk of caps becoming detached and lost in the environment, thereby reducing plastic pollution in water sources and marine ecosystems.
- **Improved recycling efficiency:** As the cap remains attached to the bottle, collection and sorting processes are simplified, enhancing the overall recycling rate of both the cap and the bottle.
- **Enhanced consumer convenience:** The cap can be opened and closed with one hand, while remaining securely attached and preventing loss.
