

Bridgestone Group Basis of actual calculation for GHG emissions (as of March 2023)

1. Scope of calculation

The scope of calculation covers the value chain of Bridgestone Group's major products (Scope1, 2 and 3 of the GHG protocol).

* Category 8 and 13 are excluded from the 15 categories in Scope 3.

2. Reference Standards for calculation

ISO14064-1 Part 1	Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (March, 2006)
WBCSD/WRI	A Corporate Accounting and Reporting standard (revised edition, March 2004)
WBCSD/WRI	Corporate Value Chain (Scope3) Accounting and Reporting Standard (September 2011)
WBCSD/WRI	Product Lifecycle Accounting and Reporting Standard (September 2011)
The Japan Automobile Tyre Manufacturers Association, Inc.	Tyre LCCO2 Calculation Guidelines Ver. 3.0.1 (2021)

3. GHG emissions estimation basis

GHG calculation for operations was based on most recently available measured data and referenced to standards listed in above item 2. However, at present, some GHG calculation data include estimation, so we seek to continue improving this area for further transparency and data accuracy.

(1) Scope 1 and 2

Calculated by multiplying the consumption of energy (fuel, electricity, heat/steam) associated with the production of products at the Group's production sites by the GHG emission factor* for each energy.

*GHG emission factors by production site/consumed energy are referenced from the standards mentioned in item 2 and/or the standards listed below.

•GHG Protocol, Emission Factors from Cross Sector Tools, March 2017, developed by WRI

and WBCSD

- International Energy Agency (IEA) – GHG Emission Factors 2021
- Law Concerning the Promotion of Measures to Cope with Global Warming
- US EPA eGRID

(2) Scope 3 (Category 1: Purchased goods and services)

In the tire business, calculated by multiplying the amount of raw materials used by the Group by the GHG emission factor* for each raw material.

For businesses other than the above, GHG emission estimation are based on the amount of raw material procurement, the composition of raw materials for main products, sales, etc.

*For GHG emission factors, refer to "Tyre LCCO₂ Calculation Guidelines Ver.3.0.1" (Japan Automobile Tire Manufacturers Association).

(3) Scope 3 (Category 2: Capital goods)

Calculated by multiplying the capital investment cost by the GHG emission factor from the Ministry of the Environment's "Emission Factor Database for Calculating Greenhouse Gas Emissions of Organizations through Supply Chain (ver 3.2)".

(4) Scope 3 (Category 3: Fuel and energy related activities not included in Scope 1 or 2)

Calculated by multiplying energy consumption by the GHG emission factor from the Department for Environment, Food & Rural Affairs (DEFRA).

(5) Scope 3 (Category 4: Upstream transportation and distribution)

Upstream transportation and distribution includes both land and sea transportation.

For land transportation, calculated based on the Group's distribution volume.

For tire business in marine transportation, calculated based on actual distribution volume and transportation distance. For other businesses, GHG emissions are estimated from distribution volume and sales.

(6) Scope 3 (Category 5: Waste generated in operations)

Calculated by multiplying the amount of waste generated by the Group by the GHG emission factor from the Ministry of the Environment's "Emission Factor Database for Calculating Greenhouse Gas Emissions by Organizations through Supply Chain (ver 3.2)".

(7) Scope 3 (Category 6: Business travel)

Calculated by multiplying the number of Group's employees by the GHG emission factor provided by the Ministry of the Environment's "Emission Factor Database for Calculation of Greenhouse Gas Emissions by Organizations through Supply Chain (ver 3.2)".

(8) Scope 3 (Category 7: Employee commuting)

Calculated by multiplying the number of Group's employees by the GHG emission factor provided by the Ministry of the Environment's "Emission Factor Database for Calculation of Greenhouse Gas Emissions by Organizations through Supply Chain (ver 3.2)".

(9) Scope 3 (Category 9: Downstream transportation and distribution)

Calculated by, GHG emissions per unit of sales are calculated from partial Group stores and multiplied by the Group's total sales.

(10) Scope 3 (Category 10: Processing of sold products)

Calculated by the amount of power consumed when installing a tire onto a wheel by multiplying the electricity required to install each tire by the number of tires sold, and then multiplying by the Ministry of the Environment's "Emission Factors by Electricity Supplier".

(11) Scope 3 (Category 11: Use of sold products)

Calculated by fuel consumption data quoted from International Council on Clean Transportation and Department for Environment, Food & Rural Affairs (DEFRA) based on "Tyre LCCO₂ Calculation Guidelines Ver.3.0.1" (Japan Automobile Tire Manufacturers Association).

(12) Scope 3 (Category 12: End-of-life treatment of sold products)

Calculated by multiplying the amount of product waste estimated from the amount of raw materials procured by the Group by the GHG emission factor* of each raw material.

*For GHG emission factors, refer to "Tyre LCCO₂ Calculation Guidelines Ver.3.0.1" (Japan Automobile Tire Manufacturers Association).

(13) Scope 3 (Category 14: Franchises)

Calculated by calculating the GHG emissions per representative franchise store and multiplying by the number of franchise stores.

(14) Scope 3 (Category 15: Investments)

Calculated by multiplying the ratio of the number of shares held by the Group to the total

number of issued shares of the investee by the investee's Scope 1 and 2

4. Notices

Since the disclosure of "GHG reduction target" achievements through our CSR report 2011, third party reviews and comments are closely considered when updating GHG calculation methods for further accuracy. Actual base year (2011) figures have also been altered along with this updating process.

The major changes made in calculation methods after disclosure of target achievement in Bridgestone Group Integrated Report 2023 are given below.

Target	Details of change
Scope 1, 2	<p>Based on the business restructuring in line with the mid-long term business strategy, production bases related to businesses that have been sold or transferred in 2021 will be excluded from the 2030 target calculation.</p> <p>*The energy consumption and GHG emissions disclosed in "ESG Data" will continue to be included in the calculation of businesses that have been sold or transferred in 2021.</p>
Scope 3	<p>Updated each emission factor in line with the revision of the Japan Automobile Tire Manufacturers Association " Tyre LCCO₂ Calculation Guidelines" (ver.2.0 ⇒ ver.3.0.1), which is the main reference source for GHG emission factors.</p> <p>In addition, fuel consumption data quoted from the International Council on Clean Transportation and the Department for Environment, Food & Rural Affairs (DEFRA) is introduced for calculation in Scope 3 Category 11.</p>

Calculation of actual results is based on preconditions deemed reasonable by our group at the time of disclosure (June, 2023). GHG calculation methods including measures to reduce emissions will be reviewed regularly by paying close attention to changing social conditions and our business environment.