

# On the road to net zero

Birla Carbon 2022  
Global Reporting Initiative and  
UN Global Compact Indices



# GRI Index

## Birla Carbon 2022

This report has been prepared in accordance with the GRI Standards 2016 Comprehensive option.

The data in this report relates to the fiscal year ending March 31, 2022, unless otherwise stated.

For a detailed explanation of the indicators, visit the [GRI website](#).

### Mapping our material GRI indicators against the United Nations Sustainable Development Goals

We have mapped our existing progress on our most material aspects and indicators against the United Nations (UN) Sustainable Development Goals (SDGs), through the Compass tool developed by the UN.

The following key shows the icons we use in our GRI Index wherever a topic maps with an SDG:



# Global Reporting Initiative (GRI) Index in accordance with Comprehensive GRI Standards 2016

## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-1		Birla Carbon	
102-2	<a href="https://www.birlacarbon.com/">https://www.birlacarbon.com/</a>	Carbon black manufacturer and supplier. Our product has not been banned in any markets.	
102-3		Mumbai, Maharashtra, India	
102-4	<a href="http://birlacarbon.com/locations/">http://birlacarbon.com/locations/</a>	12 countries (Brazil, Canada, China, Egypt, Germany, Hungary, India, Italy, South Korea, Spain, Thailand and United States of America)	
102-5	<a href="#">Governance</a>	Aditya Birla Group	
102-6	<a href="https://www.birlacarbon.com/markets/">https://www.birlacarbon.com/markets/</a>	Markets served are in Europe and Africa, North America, South America, Oceania, South East Asia and the Far East. Sector served: private, manufactured goods. Customers are in the tire, manufactured rubber goods and specialty product industries (plastics, inks, paints and coatings).	
102-7		Total Number of Employees = 2,205 16 Manufacturing Sites 8 Offices 2 Technology Centers Privately owned company Production capacity of 2Mt/year Selling price depends somewhat on oil price	

## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-8	<a href="#">See Appendix: Data GRI 102-8</a>	<p>A significant portion of the workforce at our plants in South Asia consists of contractors; these contractors perform work primarily in warehousing, maintenance and construction functions at the plants.</p> <p>No significant variations in employee numbers reported throughout reporting period.</p> <p>Data compiled by HR heads at each site at the end of the fiscal year. No significant assumptions were made when compiling data.</p> <p><b>8</b></p>	
102-9	<a href="#">Supplier management</a>	<p>Our main suppliers consist of raw material and chemical providers, engineering groups for equipment and spare parts, and transportation companies. Apart from feedstock oil, most of our suppliers are managed regionally and even locally, at the plant level.</p>	
102-10		<p>No significant changes to operations.</p> <p>No significant changes in the share capital structure or in the location of suppliers.</p> <p><b>12</b> <b>17</b></p>	
102-11	<a href="#">Global recognition FY2022</a> <a href="#">Focusing on what matters</a> <a href="#">Governance</a> <a href="#">Product responsibility</a>		

## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-12	<a href="#">Our approach</a> <a href="#">Stakeholder engagement</a> <a href="#">Focusing on what matters</a> <a href="#">Governance</a> <a href="#">Compliance</a> <a href="#">Product responsibility</a> <a href="#">Product quality</a> <a href="#">Reducing our GHG emissions</a> <a href="#">Water</a> <a href="#">Customer engagement</a> <a href="#">Employee engagement</a>	17	
102-13	<a href="#">Stakeholder engagement</a>	International Carbon Black Association (ICBA) World Business Council for Sustainable Development (WBCSD) Brazilian Chemical Industry Association (ABIQUIM) Risk Management Society (RIMS) North American Product Safety and Regulatory Committee (NAPSRC) of the ICBA Sustainability Leadership Forum (SLF)	17
102-14	<a href="#">Leadership messages</a>		
102-15	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">Targets and progress</a> <a href="#">About our tenth report</a>		
102-16	<a href="#">Ethics</a> <a href="#">Compliance</a>	16	

## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-17	<u>Ethics</u> <u>Compliance</u>	16	
102-18	<u>Governance</u>	16	
102-19	<u>Governance</u>		
102-20	<u>Focusing on what matters</u> <u>Governance</u>		
102-21	<u>Stakeholder engagement</u> <u>Governance</u> <u>Customer engagement</u> <u>Employee engagement</u>	16 17	
102-22	<a href="https://www.birlacarbon.com/about/#leadership">https://www.birlacarbon.com/about/#leadership</a>	If conflicts of interest arise, these will be self-declared by the members. 16	
102-23	<a href="http://birlacarbon.com/about/dr-santrupt-misra/">http://birlacarbon.com/about/dr-santrupt-misra/</a>	16	
102-24		The process for selecting the officers of the Senior Management Team (SMT) involves working with top search firms to select the most qualified candidates based upon their experience and qualifications. While gender and diversity are important considerations, the selection process ensures that all candidates possess the necessary knowledge and expertise of economic, environmental and social issues pertinent to Birla Carbon. If conflicts of interest arise, these will be self-declared by the members. Stakeholders, with the exception of shareholders, are not consulted during the selection process. For each Birla Carbon entity, the shareholders appoint/reappoint the members of that company's Board of Directors by either an Annual Shareholders' Meeting or a Written Consent in lieu of an Annual Shareholders' Meeting (as required by the respective country's corporate laws). 16	

## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-25	Downloads (see <a href="#">Birla Carbon Code of Ethics</a> )	All employees, including those in the highest governing body, are required to sign a Code of Ethics which includes the following language: "Each Employee must avoid at all times any interest that might conflict or appear to conflict with the interests of the Company, or that might deprive the Company of the undivided loyalty of the Employee in business dealings. To this end, an Employee should not become involved in any situation that may create a personal interest in the situation, or place the Employee under an obligation that may interfere with his or her primary duty to serve the Company at all times to the best of his or her ability." Also, each member of the SMT is required to participate in Code of Ethics training to assist in identification and handling of conflicts of interest. In the rare event that a potential conflict of interest arises within the SMT, members are required to self-declare the conflict, and are then excused from related discussions.	
		16	
102-26	<a href="#">Governance</a>		
102-27	<a href="#">Governance</a>	Specific teams within the business responsible for sustainability-related programs will also provide progress updates direct to the SMT.	
		4	
102-28		Birla Carbon's SMT is evaluated based on the success of the business linked to its 2030 sustainability targets, which cover economic, environmental and social performance. These evaluations take place on an annual basis and will be reviewed by the Aditya Birla Group Chairman. No actions have been required in response to these evaluations in FY2022.	
102-29	<a href="#">Focusing on what matters</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a>	16	
102-30	<a href="#">Governance</a>		
102-31	<a href="#">Focusing on what matters</a> <a href="#">Governance</a>		

## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-32		Chief Legal, Sustainability and Risk Officer Joe Gaynor reviews and approves Birla Carbon's sustainability report.	
102-33	<u>Ethics</u>		
102-34	<u>Ethics</u>		
102-35		<p>Annual compensation matters for all employees in Job Band 5 and above are linked to the annual incentive plan (AIP) and long-term incentive plans (LTIP), which the Chairman approves.</p> <p>These are tied directly to the business's approved annual operating plan and budget, which establishes the relevant performance metrics executives will be measured against annually and the performance of the business during FY2022. Each executive's personal performance is measured by a rigorous process of performance management throughout the year and linked, where relevant, to economic, environmental and social performance objectives. Compensation in this context includes, but is not limited to, cash or deferred payments, incentive and equity compensation, benefits, perquisites, employment, retention and/or termination/severance agreements and any other programs which would be considered compensation by regulatory authorities.</p>	
102-36		<p>All compensation actions for employees in Job Band 5 and above are subject to the approval of the Chairman of the Aditya Birla Group, assisted by Group Human Resources and the office of the Chief Human Resources Officer (CHRO). The CHRO's office puts together the compensation proposal for all employees in Job Band 3 and above, including all the members of the SMT, and presents it to the Chief Operating Officer (COO). The COO then forwards the proposals to the Chief Executive Officer (CEO) for his approval, and they are then forwarded to the Group Human Resources department. Levels of remuneration are regularly benchmarked against similar positions in related industries through external resources. Mercer was used as remuneration consultant for this benchmarking, and it has no other relationship with Birla Carbon.</p>	
102-37		Birla Carbon does not consult external stakeholders, other than shareholders, on remuneration policies.	



## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-38			Due to the size of some Birla Carbon business units and the number of employees, compensation data is classified as business sensitive and cannot be disclosed due to confidentiality constraints.
102-39			Due to the size of some Birla Carbon business units and the number of employees, compensation data is classified as business sensitive and cannot be disclosed due to confidentiality constraints.
102-40	<a href="#">Stakeholder engagement</a>		
102-41	<a href="#">Ethics</a>	8	
102-42	<a href="#">Stakeholder engagement</a>		
102-43	<a href="#">Stakeholder engagement</a> <a href="#">Focusing on what matters</a> <a href="#">Governance</a> <a href="#">Ethics</a> <a href="#">Product responsibility</a> <a href="#">Product quality</a> <a href="#">Reducing our GHG emissions</a> <a href="#">Customer engagement</a> <a href="#">Supplier management</a> <a href="#">Employee engagement</a> <a href="#">Community engagement</a>	17	
102-44	See above		
102-45		Our consolidated financial statements include all manufacturing facilities and legal entities worldwide.	
102-46	<a href="#">Focusing on what matters</a> <a href="#">About our tenth report</a>		
102-47	<a href="#">Focusing on what matters</a>	Material aspects are those with indicators reported against in this index.	

## GRI 102: GENERAL STANDARD DISCLOSURES 2016

Disclosure number	Source	Notes	Omissions
102-48		No restatement of information for FY2022.	
102-49	<a href="#">About our tenth report</a>		
102-50		FY2022: April 1, 2021 to March 31, 2022	
102-51		FY2021	
102-52		Annual	
102-53		Amy Hickman, Director of Sustainability <a href="mailto:birlacarbon.sustainability@adityabirla.com">birlacarbon.sustainability@adityabirla.com</a>	
102-54		This report has been prepared in accordance with the GRI Standards Comprehensive option.	
102-55		GRI Standards are referenced throughout this index. Material topics which are reported on but not covered by the GRI Standards include: Business continuity Global presence Innovation Customer engagement Circular economy	
102-56		Where available we use recognized methodologies for measuring and presenting our performance data, and have stated where this is not the case. This includes adhering to the Global Reporting Initiative's guidelines where appropriate. While Birla Carbon has not had its sustainability report independently verified this year, our approach to assurance is reviewed annually. Our SMT must approve any decision to seek external assurance.	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>ECONOMIC</b>			
MATERIAL ISSUE: SUSTAINABLE PROCUREMENT			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Supplier management</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Supplier management</a>		
<b>GRI 204: Procurement Practices 2016</b>			
204-1			Information unavailable. As Birla Carbon has a decentralized procurement approach, local procurement data is not currently available. Birla Carbon recognizes this is a gap in its procurement management and intends to develop the measurement tools to collect this data over the next 12 months.

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
MATERIAL ISSUE: ETHICS			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Ethics</a> <a href="#">Compliance</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Ethics</a> <a href="#">Compliance</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>GRI 205: Anti-Corruption 2016</b>			
205-1		100% of Birla Carbon's plants are analyzed for risks at least every two years by the internal audit team. However, due to the COVID-19 pandemic, coverage has not been consistent in the last two years. If compliance issues are discovered, plants may be audited more frequently until findings are corrected. No significant risks related to corruption were identified through the audits in FY2022.	
		<b>16</b>	
205-2		Birla Carbon has communicated and provided training on its anti-corruption policies and procedures (Code of Ethics) to 50% of its employees, including governance body members, and business partners as part of our standard Terms and Conditions of Purchase. Due to COVID-19, we were unable to conduct classroom Code of Ethics training for many production line employees.	
		<b>16</b>	
205-3	<u>Ethics</u>	In FY2022, two allegations of corruption were raised. The allegations were investigated and the employees involved were terminated.	
		<b>16</b>	
<b>GRI 206: Anti-Competitive Behavior 2016</b>			
206-1		Birla Carbon has not been involved in any legal actions pending or completed during the reporting period regarding anti-competitive behavior, violations of antitrust or monopoly legislation.	
		<b>16</b>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>ENVIRONMENTAL</b>			
MATERIAL ISSUE: SUSTAINABLE PROCUREMENT			
<b>GRI 301: Materials 2016</b>			
301-1	<a href="#">See Appendix: Data GRI 301-1</a>	12 13	
301-2	<a href="#">Our product</a>	We are unable to use recycled feedstock oil due to its impact on product quality and the nature of our production process. However, in FY2021 Birla Carbon partnered with Cirttec, the leader in pyrolysis technology and the production of renewable fuels from end-of-life tires. This positions Birla Carbon to deliver up to 73,000 tonnes of sustainable carbonaceous materials from end-of-life tires in the next five years. 12 13	
301-3		We recycle as much as possible of our off-spec material back into our manufacturing process. The amount of packing material (e.g. pallets, big bags) we use is limited, but we strive to recycle as much as possible. Through our partnership with Repasack® in Europe, we recycled 11.2 tonnes of packaging material.	
MATERIAL ISSUE: ENERGY			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Reducing our GHG emissions</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Reducing our GHG emissions</a>		
<b>GRI 302: Energy 2016</b>			
302-1	<a href="#">See Appendix: Data GRI 302-1</a>	<p>Birla Carbon's energy consumption has been provided in energy intensity values due to the commercial sensitivity of this information in actual values.</p> <p>7 12 13</p>	
302-2	<a href="#">See Appendix: Data GRI 302-2</a>	<p>7 12 13</p>	
302-3		<p>Birla Carbon's energy consumption intensity in FY2022 was 16.16 GJ/tonne of carbon black. Our organization-specific metric is carbon black production. All types of energy consumed are included in the calculation. Only energy consumed within the organization is included in the ratio.</p> <p>7 12 13</p>	
302-4	<a href="#">Reducing our GHG emissions</a>	<p>Birla Carbon's total energy consumption intensity increased in FY2022 as compared to FY2021. However, some projects still resulted in energy-consumption reductions, as highlighted in our report.</p> <p>7 12 13</p>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
302-5		7 9 12 13	Information unavailable. Birla Carbon is working to develop and produce new grades of carbon black that are easier to incorporate into customer manufacturing processes and products. While Birla Carbon's customers may measure the corresponding energy gain in their manufacturing processes, Birla Carbon has no access to this information due to the commercial sensitivity of the rubber, plastic or ink formulations. Each manufacturing process varies, and it is outside of Birla Carbon's control to consider in a generic formulation all the factors which affect the energy measurement.
MATERIAL ISSUE: WATER			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Water</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Water</a>		



## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>GRI 303: Water and Effluents 2018</b>			
303-1	<u>Water</u>	6 12	
303-2	<u>Water</u>	All sites are complying with local regulatory requirements for water management and discharge. Plants are audited every two years for compliance with water quality standards. We do not have internal requirements. Nine of our plants are zero-discharge facilities. 6 12	
303-3	<u>See Appendix: Data GRI 303-3</u>	6 12	
303-4	<u>See Appendix: Data GRI 303-4</u>	All of our sites manage their water discharge in accordance with their discharge permits and local regulatory requirements.	
303-5	<u>Water</u>	a) Water consumption for our manufacturing process for all sites is estimated to be 7,110 megaliters in FY2022. b) Water consumption for our manufacturing process of sites in water-stressed areas is estimated to be 2,658 megaliters. c) Water storage at our sites is not expected to have a significant impact. d) Water consumption for our manufacturing process is estimated based on internal engineering models. This excludes water consumed for power generation, environmental controls, steam consumption and ancillary activities (e.g. floor washing).	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
MATERIAL ISSUE: GHG AND AIR EMISSIONS			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Reducing our GHG emissions</a> <a href="#">Air emissions</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">The circularity of carbon black</a> <a href="#">Reducing our GHG emissions</a> <a href="#">Air emissions</a>		
<b>GRI 305: Emissions 2016</b>			
305-1	See Appendix: Data GRI 305-1	3 12 13	
305-2	See Appendix: Data GRI 305-2	3 12 13	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
305-3	<a href="#">See Appendix: Data GRI 305-3</a>	<p>Through our product life cycle assessment, Birla Carbon has identified the energy consumption of suppliers and downstream transportation as material, based on where potential energy reductions could be undertaken or influenced by Birla Carbon.</p> <p>3 12 13</p>	
305-4	<a href="#">Targets and progress</a> <a href="#">Reducing our GHG emissions</a>	<p>3 12 13</p>	Confidentiality constraints. Absolute emission intensity data is commercially sensitive.
305-5	<a href="#">Targets and progress</a> <a href="#">Reducing our GHG emissions</a>	<p>a) Birla Carbon experienced an increase in Scope 1 emissions of approximately 629,601 tonnes due to increased production across all of our sites.</p> <p>b) Only CO<sub>2</sub> gas is included in the calculation, as emissions of other gases are considered negligible in comparison.</p> <p>c) Comparisons are made to the previous GRI reporting year (FY2021).</p> <p>d) Scope 1 and Scope 2.</p> <p>e) Same as reported in 305-1 and 305-2.</p> <p>3 12 13</p>	
305-6		<p>3 13</p>	Not applicable. Emissions of ozone-depleting substances are deemed immaterial to Birla Carbon due to the nature of its manufacturing processes and scale of its direct CO <sub>2</sub> emissions.
305-7	<a href="#">See Appendix: Data GRI 305-7</a>	<p>3 13</p>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
MATERIAL ISSUE: WASTE AND WATER			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Water</a> <a href="#">Waste</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Water</a> <a href="#">Waste</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>GRI 306: Waste 2020</b>			
306-1	<a href="#">Targets and progress</a> <a href="#">Waste</a> <a href="#">Air emissions</a>	<p>The carbon black production process generates very little landfilled waste overall due to the limited number of raw materials (feedstock oil and water) used in our process.</p> <p>The majority of the hazardous waste is generated from required quality testing/analysis. Our teams are constantly looking at how the use of hazardous materials can be minimized or safer alternatives can be used for testing and analysis.</p> <p>Some of our ancillary processes required for environmental compliance, such as flue gas desulfurization, generate a significant amount of gypsum byproduct. However, we have identified valuable reuse options for gypsum at all of our facilities or are using alternative technologies to eliminate the gypsum byproduct. For the carbon black industry, the majority of potential waste impacts are downstream in our value chain. Approximately 70% of our carbon black goes into tires, which can often have limited opportunities for repurposing. However, with our new Continua™ 8000 product, a carbonaceous material that brings a circular solution to our customers, we see the potential to close the loop fully.</p>	
		<div style="display: flex; gap: 5px;"> <div style="background-color: #2e7d32; color: white; padding: 2px 5px;">3</div> <div style="background-color: #00bcd4; color: white; padding: 2px 5px;">6</div> <div style="background-color: #e67e22; color: white; padding: 2px 5px;">12</div> </div>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
306-2	<a href="#">Targets and progress Waste</a>	<p>a) We have implemented a Global Waste Management Standard since 2017 that requires all of our facilities to evaluate and implement waste-minimization opportunities on an annual basis. Where we cannot eliminate or reduce a waste stream, we try to find vendors to reuse or recycle the waste. For example, our site in Thailand has identified a vendor for composting its gypsum. We encourage our customers to accept carbon black in bulk delivery systems (i.e. truck or rail car) when possible. We are also exploring opportunities to improve the capacity and quality of packaging takeback and reuse programs at some of our facilities and source biodegradable packaging materials. For example, our Cubatão site reused super sacks for the same grade to reduce packaging waste.</p> <p>b) In line with local regulations and our Waste Management Standard, the Health, Safety and Environment (HSE) Managers at our sites are required to qualify/evaluate companies providing waste transportation and disposal services. This requirement is verified by a third party during our audits, which are conducted every two years.</p> <p>c) Waste is a focal point of our internal compliance auditing process conducted on-site every 24 months. Our waste storage and disposal volumes are entered into our Environmental Information Management System (Enablon) by a site representative on a monthly basis. This data is verified by our Global Sustainability Analyst and reported in this index.</p>	
306-3	<a href="#">See Appendix: Data GRI 306-3</a>		
306-4	<a href="#">See Appendix: Data GRI 306-4</a>		
306-5	<a href="#">See Appendix: Data GRI 306-5</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
MATERIAL ISSUE: GOVERNANCE FRAMEWORK			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Compliance</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Compliance</a>		
<b>GRI 307: Environmental Compliance 2016</b>			
307-1		<p>Birla Carbon received one environmental fine in FY2022 related to stack emission with a forfeited amount equivalent to \$6,667. On March 21, 2022, an equipment incident resulted in carbon black release. Compensation equivalent to \$5,500 was paid to the community for cleaning up the emitted carbon black.</p>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>GRI 308: Supplier Environmental Assessment 2016</b>			
308-1	<a href="#">Supplier management</a>	100% of our critical suppliers, per International Automotive Task Force (IATF) 16949, have been invited to participate in our environmental criteria screening initiative. 36% of our critical suppliers have been screened using environmental criteria through EcoVadis. All new critical suppliers will be invited to participate.	
308-2		Ninety-three of our critical suppliers have been assessed for environmental impacts. None of our suppliers have confirmed negative environmental impacts; however, several of our suppliers did score low on their environmental assessments due to inconclusive documentation on environmental policies, lack of International Organization for Standardization (ISO) 14001 certification and limited to no disclosure on environmental metrics. We have not established improvement plans with any of our suppliers yet, as we are in the early stages of the assessment process. We have not had reason to terminate any relationship with suppliers yet due to environmental performance.	

## SOCIAL

## MATERIAL ISSUE: EMPLOYEE ENGAGEMENT

**GRI 103: Management Approach 2016**

103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Attracting and retaining talent</a> <a href="#">Downloads</a>		



## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Health and safety</a>		
<b>GRI 401: Employment 2016</b>			
401-1	<a href="#">See Appendix: Data GRI 401-1</a>	8	
401-2		Benefits are provided to full-time, part-time and temporary employees in accordance with local laws and regulations. Birla Carbon endeavors to provide full- and part-time employees with the same level of benefits where appropriate.	8
401-3	<a href="#">See Appendix: Data GRI 401-3</a>	8	
MATERIAL ISSUE: SAFETY			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Health and safety</a> <a href="#">Downloads</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Health and safety</a>		
<b>GRI 403: Occupational Health and Safety 2018</b>			
403-1	<a href="#">Health and safety</a>		
403-2	<a href="#">Health and safety</a>	<p>Each site has a process for workers to report hazards and near-miss incidents. Reporting hazards and near misses is strongly encouraged and in some plants incentivized. The company has a formal incident reporting and investigation standard. Each site is expected to have a local process for the reporting and investigation of incidents including near misses, consistent with the company standard. Information on incidents is recorded in a central system (Enablon). A daily report of incidents reported in the previous 24 hours is distributed to approximately 250 executives and managers globally. Completion of investigations and close-out of findings is tracked; incidents with important learnings for other sites are flagged as High Value Learning Events or shared as safety alerts with other sites. Corrective actions from incident investigations focus both on the immediate conditions and behaviors responsible for the incident and on any gaps in the health and safety management system.</p>	
403-3	<a href="#">Health and safety</a>	<p>The occupational health services (OHS) at our locations perform regular medical surveillance activities to detect potential impacts of occupational exposures, such as noise, dusts and chemicals. The OHS also provide non-occupational health screenings for conditions such as high blood pressure, cholesterol, diabetes, etc. These departments are also the primary sources of health education for the sites. These services are readily accessible to employees and in many instances required by law.</p>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
403-4	<a href="#">Health and safety</a>	Employees are involved at the sites based on local regulatory requirements and the discretion of management. Employees do not consult on or design the quality management system. All sites have a formal HSE Committee with representation of employees and management. The membership, responsibilities and meeting frequency are designated by legal requirements and site-specific determinations. Employees are also involved in other safety and health programs and initiatives depending on site requirements, such as safety inspections, development of job safety analyses and safe work permitting.	
403-5	<a href="#">Health and safety</a>	All sites have a process to ensure that training in a variety of HSE subjects is provided at regular intervals to comply with regulatory requirements and the requirements of company standards. This training is documented, including methods to verify understanding.	
403-6	<a href="#">Health and safety</a>	In addition to non-occupational screening, the on-site clinics are used for the treatment of work-related symptoms as well as minor, non-work-related conditions. Where needs arise, special services are provided, such as many sites offering on-site vaccination clinics for COVID-19.	
403-7	<a href="#">Health and safety</a>	Birla Carbon maintains a comprehensive product stewardship process to 1) ensure products comply with regulatory requirements where they are manufactured and sold, 2) provide customers with health, safety and regulatory information on our products to allow them to protect their employees and those who use their products and 3) track developing regulatory requirements to ensure that the company can meet these obligations prior to any compliance deadline.	
403-8	<a href="#">See Appendix: Data GRI 403-8</a>	Internal audits are conducted by Corporate HSE as needed, but at a minimum every two years. These audits are used to measure compliance with regulatory requirements and global standards, and measure the overall effectiveness of site HSE management systems. Findings from these audits are tracked to completion. Many sites are also Occupational Health and Safety Assessment Series (OHSAS) 18001/ISO 45001 certified.	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
403-9	<a href="#">Health and safety</a> <a href="#">See Appendix: Data GRI 403-9</a>	The company has a formal reporting process and uses common HSE performance incidence rate metrics. Incidents and exposure hours are recorded monthly in a centralized system and communicated to all sites along with other key performance indicators on a monthly basis. The company also tracks and reports leading indicators monthly, including near-miss reporting, completion of audit findings and HSE program self-assessment scores.	
403-10	<a href="#">See Appendix: Data GRI 403-10</a>	Hazards are identified through routine audits and inspections of the sites and industrial hygiene exposure assessments. Birla Carbon has an internal standard for exposure assessment and complies with any local or country regulatory requirements for exposure assessment and monitoring requirements. Noise is the most prevalent risk for occupational exposure in the work environment. Each site has a comprehensive hearing-conservation program that includes annual audiometric testing, noise monitoring at regular intervals, installation of engineering controls to reduce noise levels and the use of hearing protection by personnel working in areas with elevated noise levels. Contractors may be excluded from medical surveillance requirements (North America and Europe historically do not monitor contractors), but are not excluded from protective measures.	
MATERIAL ISSUE: EMPLOYEE ENGAGEMENT			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Health and safety</a> <a href="#">Downloads</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Health and safety</a>		
<b>GRI 404: Training and Education 2016</b>			
404-1	<a href="#">See Appendix: Data GRI 404-1</a>		
404-2	<a href="#">Attracting and retaining talent</a> <a href="#">Employee engagement</a>	8	
404-3		100% of employees receive regular performance and career development reviews.	
		4 8	
MATERIAL ISSUE: HUMAN RIGHTS			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Ethics</a> <a href="#">Downloads</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Ethics</a>		
<b>GRI 406: Non-Discrimination 2016</b>			
406-1		<p>There were no incidents of discrimination in FY2022.</p> <p>8 16</p>	
<b>GRI 408: Child Labor 2016</b>			
408-1		<p>Through our third-party due diligence screening system we have not identified any suppliers with incidents of child labor or forced or compulsory labor. Birla Carbon's Code of Ethics and Supplier Terms and Conditions of Purchase prohibit this.</p>	
<b>GRI 409: Forced or Compulsory Labor 2016</b>			
409-1		<p>Through our third-party due diligence screening system we have not identified any suppliers with incidents of child labor or forced or compulsory labor. Birla Carbon's Code of Ethics and Supplier Terms and Conditions of Purchase prohibit this.</p> <p>8 10 16</p>	
<b>GRI 411: Rights of Indigenous Peoples 2016</b>			
411-1		<p>There were no incidents of violations involving rights of Indigenous peoples in FY2022.</p> <p>16</p>	
<b>GRI 412: Human Rights Assessment 2016</b>			
412-1		<p>None of our operations has been subject to formal human rights reviews or impact assessments.</p> <p>16</p>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
412-2		1,132 employees (100% of online employees) were trained on human rights policies and procedures in FY2022. Due to COVID-19, we were unable to conduct classroom Code of Ethics training for many production line employees. <b>4</b> <b>16</b>	
412-3		Birla Carbon does not systematically include human rights clauses in investment agreements. We have, however, revised our Supplier Terms and Conditions of Purchase to include a Business Ethics clause referring to our Code of Ethics. <b>17</b>	

## MATERIAL ISSUE: COMMUNITY ENGAGEMENT

## GRI 103: Management Approach 2016

103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Communities</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Communities</a>		

## SPECIFIC STANDARD DISCLOSURES



Disclosure number	Source	Notes	Omissions
<b>GRI 413: Local Communities 2016</b>			
413-1		100% of Birla Carbon manufacturing plants have implemented local community engagement programs including local community development programs and formal local community grievance processes. While a number of Birla Carbon plants are testing ways to measure their community engagement programs, Birla Carbon recognizes this is inconsistent and intends to identify appropriate impact assessment approaches over the next two years with the help of its parent company, the Aditya Birla Group.	
413-2		100% of Birla Carbon manufacturing plants would have significant potential negative impacts on local communities if carbon black powder were released into the local area; however, Birla Carbon has strict controls in place to avoid these impacts.	
MATERIAL ISSUE: SUSTAINABLE PROCUREMENT			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Supplier management</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Supplier management</a>		



## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>GRI 414: Supplier Social Assessment 2016</b>			
414-1	<u>Governance and ethics</u> <u>Customers and suppliers</u> <u>Supplier management</u>	16 17	
414-2	<u>Governance and ethics</u> <u>Customers and suppliers</u> <u>Supplier management</u>	16 17	
MATERIAL ISSUE: PRODUCT STEWARDSHIP			
<b>GRI 103: Management Approach 2016</b>			
103-1	<u>Leadership messages</u> <u>Focusing on what matters</u> <u>Contributing to the Sustainable Development Goals</u> <u>Stakeholder engagement</u> <u>About our tenth report</u>		
103-2	<u>Leadership messages</u> <u>Contributing to the Sustainable Development Goals</u> <u>Targets and progress</u> <u>Governance</u> <u>Product responsibility</u> <u>Downloads</u>		
103-3	<u>Targets and progress</u> <u>Stakeholder engagement</u> <u>Governance</u> <u>Product responsibility</u>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>GRI 416: Customer Health and Safety 2016</b>			
416-1		100% of our products are assessed for health and safety improvements. 	
416-2		There have been no incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of Birla Carbon products in FY2022. 	
MATERIAL ISSUE: PRODUCT CONSISTENCY			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Product quality</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Product quality</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>GRI 417: Marketing and Labeling 2016</b>			
417-1	<a href="https://www.birlacarbon.com/hse/">https://www.birlacarbon.com/hse/</a>	Through Safety Data Sheets Birla Carbon's product labeling includes the content and safety guidance on use and disposal of the product. <b>3 8 9 16</b>	
417-2		There have been no incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling in FY2022.	
417-3		There have been no incidents of non-compliance with regulations and voluntary codes concerning marketing communications in FY2022. <b>16</b>	
MATERIAL ISSUE: GOVERNANCE FRAMEWORK			
<b>GRI 419: Socioeconomic Compliance 2016</b>			
419-1		Birla Carbon has not received any significant fines for non-compliance with laws and regulations concerning the provision and use of products and services in FY2022. <b>16</b>	

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
<b>OTHER MATERIAL ISSUES</b>			
MATERIAL ISSUE: CUSTOMER ENGAGEMENT			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Customer engagement</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Customer engagement</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
MATERIAL ISSUE: BUSINESS CONTINUITY			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
MATERIAL ISSUE: GLOBAL PRESENCE			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a>		

## SPECIFIC STANDARD DISCLOSURES

Disclosure number	Source	Notes	Omissions
MATERIAL ISSUE: INNOVATION			
<b>GRI 103: Management Approach 2016</b>			
103-1	<a href="#">Leadership messages</a> <a href="#">Focusing on what matters</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Stakeholder engagement</a> <a href="#">About our tenth report</a>		
103-2	<a href="#">Leadership messages</a> <a href="#">Contributing to the Sustainable Development Goals</a> <a href="#">Targets and progress</a> <a href="#">Governance</a> <a href="#">Research and development</a> <a href="#">Downloads</a>		
103-3	<a href="#">Targets and progress</a> <a href="#">Stakeholder engagement</a> <a href="#">Governance</a> <a href="#">Research and development</a>		

## APPENDIX: DATA

## GRI 102-8 Information on employees and other workers

Employee numbers FY2022	Americas		Asia		Europe, Middle East and Africa		Total male	Total female	Total
	Male	Female	Male	Female	Male	Female			
Full time	554	115	861	125	449	71	1,864	311	2,175
Part time	0	0	0	0	1	1	1	1	2
Permanent employees (full time + part time)	554	115	861	125	450	72	1,865	312	2,177
Temporary	10	4	11	0	2	1	23	5	28
Contractors/supervised	55	28	848	92	4	2	907	122	1,029

## GRI 301-1 Materials used by weight or volume

Raw materials used	Unit	FY2020	FY2021	FY2022
Natural gas	kNm <sup>3</sup>	142,102	136,127	155,224
Oil feedstock	tonnes	2,503,495	2,461,375	2,921,176

**Note:**

Raw materials are nonrenewable and sourced from external suppliers. The data is calculated through direct measurement.



## APPENDIX: DATA

## GRI 302-1 Energy consumption within the organization

Energy consumption intensity	Unit	FY2020	FY2021	FY2022
Oil (non-production)	GJ/t <sub>carbon black</sub>	0.10	0.16	0.14
Natural gas (non-production)	GJ/t <sub>carbon black</sub>	0.75	0.9	0.92
Electricity consumption	GJ/t <sub>carbon black</sub>	1.75	1.77	1.78
Steam consumption	GJ/t <sub>carbon black</sub>	4.87	4.82	5.16
Tail gas consumption	GJ/t <sub>carbon black</sub>	4.55	4.66	8.16
Compressed air consumption	GJ/t <sub>carbon black</sub>	0.00	0.00	0.00
Hot water consumption	GJ/t <sub>carbon black</sub>	0.00	0.00	0.00
Electricity sold	GJ/t <sub>carbon black</sub>	1.27	1.17	1.35
Tail gas sold	GJ/t <sub>carbon black</sub>	2.04	1.89	1.72
Hot water sold	GJ/t <sub>carbon black</sub>	0.00	0.00	0.00
Steam sold	GJ/t <sub>carbon black</sub>	3.17	3.08	2.80
Net energy use	GJ/t <sub>carbon black</sub>	5.54	6.17	10.29
<b>Total energy consumption</b>	GJ/t <sub>carbon black</sub>	<b>12.02</b>	<b>12.31</b>	<b>16.16</b>

**Notes:**

Site-specific gross calorific value (GCV) used for natural gas.

Used conversion factor of 3.841 to convert MWh to MKCal for power.

Used conversion factor of 780 to convert MWh of steam to MKCal.

Tail gas conversion factors varied by site.

Water heating conversion factors varied by site.

Compressed air conversion factors varied by site.

Used conversion factor of 4.187 to convert MKCal to GJ.

## APPENDIX: DATA

## GRI 302-2 Energy consumption outside the organization

Energy consumption intensity	Unit	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Upstream: Extraction, transportation, refining and distribution of raw materials	GJ/t <sub>carbon black</sub>	15.10	Not available	Not available	Not available	Not available	Not available
Downstream: Transportation and distribution of products	GJ/t <sub>carbon black</sub>	1.50	Not available	Not available	Not available	Not available	Not available

**Note:**

Scope 3 emissions were determined as part of a Life Cycle Assessment (LCA). Data required for the LCA was obtained directly from Birla Carbon's manufacturing plants, ecoinvent (v3) and the Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) Model (2013).

## LIFE CYCLE ASSESSMENTS

**Impact categories**

Category	Unit	Abbreviation
Ozone layer depletion	Trichlorofluoromethane equivalents	CFC-11 eq
Human toxicity (cancer effects and non-cancer effects)	Comparative toxic units	CTUh
Particulate matter	Particulate matter 2.5 equivalents	PM 2.5 eq
Photochemical ozone formation	Non-methane volatile organic compound equivalents	C <sub>2</sub> H <sub>4</sub> eq
Acidification	Hydrogen ion equivalents	mole H <sup>+</sup> eq
Terrestrial eutrophication	Nitrogen equivalents	mole N eq
Freshwater eutrophication	Phosphorus equivalents	P eq
Freshwater ecotoxicity	Comparative toxic units	CTUe
Land use	Carbon deficit	SOC
Mineral, fossil and renewable resource depletion	Antimony equivalent	Sb eq

## APPENDIX: DATA

## LIFE CYCLE ASSESSMENTS continued

## Results

Impact	Unit	Birla Carbon FY2017 Global	Ecoinvent database for carbon black <sup>1</sup>
Ozone layer depletion	CFC-11 eq	0.15E-03	1.1E-03
Human toxicity, cancer effects	CTUh	1.9E-06	42.2E-06
Human toxicity, non-cancer effects	CTUh	2.3E-05	25.0E-05
Particulate matter	PM 2.5 eq	0.11	4.10
Photochemical ozone formation	C <sub>2</sub> H <sub>4</sub> eq	0.91	6.09
Acidification	mole H <sup>+</sup> eq	1.59	13.2
Terrestrial eutrophication	mole N eq	1.99	15.8
Freshwater eutrophication	P eq	-0.012	0.178
Freshwater ecotoxicity	CTUe	621	573
Land use	SOC	2,090	1,500
Mineral, fossil and renewable resource depletion	Sb eq	0.01	0.05

<sup>1</sup> <http://www.ecoinvent.org/database/database.html>

## APPENDIX: DATA

## GRI 303-3 Water withdrawal

Water withdrawal by source from all areas	Unit	FY2020	FY2021	FY2022
Fresh surface water	megaliters	7,223	6,585	25,914
Groundwater	megaliters	4,992	4,221	4,377
Seawater/brackish water	megaliters	0	0	0
Produced/process water	megaliters	0	0	0
Third party	megaliters	4,340	5,177	5,991

**Notes:**

Surface water, groundwater and municipal water volumes are directly measured via metering. Rainwater and water recycled from other plant operations are directly measured via metering at some locations and are estimated at others based on rainfall data for the area.

The increase in withdrawal of fresh surface water is for the operation of air-pollution-control equipment. The sulfur oxide scrubber requires water to be cycled through it from an intracoastal waterway; all of the water is returned to the intracoastal waterway in like condition.

Water withdrawal by source from water-stressed areas	Unit	FY2020	FY2021	FY2022
Fresh surface water	megaliters	1,729	1,455	1,789
Groundwater	megaliters	982	328	445
Seawater/brackish water	megaliters	0	0	0
Produced/process water	megaliters	0	0	0
Third party	megaliters	1,696	2,483	2,967

**Note:**

Surface water, groundwater and third-party water volumes are directly measured via metering. Rainwater and water recycled from other plant operations are directly measured via metering at some locations and are estimated at others based on rainfall data for the area.

Water withdrawal by water quality	Unit	FY2020	FY2021	FY2022
Freshwater (<1,000 mg/L total dissolved solids (TDS))	megaliters	16,555	15,983	36,282
Other water (>1,000 mg/L TDS)	megaliters	0	0	0

## APPENDIX: DATA

## GRI 303-4 Water discharge

Water discharge by destination for all areas	Unit	FY2020	FY2021	FY2022
Fresh surface water	megaliters	3,039	3,029	21,339
Groundwater	megaliters	0	0	0
Seawater/brackish water	megaliters	0	0	0
Third party	megaliters	623	577	683

**Notes:**

Surface water, groundwater and third-party water volumes are directly measured via metering. Rainwater and water recycled from other plant operations are directly measured via metering at some locations and are estimated at others based on rainfall data for the area.

Water discharge by quality for all areas	Unit	FY2020	FY2021	FY2022
Freshwater (<1,000 mg/L TDS)	megaliters	3,039	3,029	21,339
Other water (>1,000 mg/L TDS)	megaliters	0	0	0

Water discharge by quality for water-stressed areas	Unit	FY2020	FY2021	FY2022
Freshwater (<1,000 mg/L TDS)	megaliters	597	634	687
Other water (>1,000 mg/L TDS)	megaliters	0	0	0

## APPENDIX: DATA

**GRI 305-1 Direct (Scope 1) GHG emissions**

	Unit	FY2020	FY2021	FY2022
	tCO <sub>2</sub> -eq	3,151,354	3,177,044	3,806,644

**Notes:**

Only CO<sub>2</sub> is included in the calculation, as emissions of other gases are considered negligible in comparison.

No biogenic CO<sub>2</sub> emissions.

FY2005 is taken as the baseline year because this is the first year reliable direct GHG-emission data was available for all plants. Base year Scope 1 emissions were 3,523,847 tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>-eq).

Emission factors for all facilities, with the exception of those in India, are sourced from 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, Default Emission Factors for Stationary Combustion in Manufacturing Industries and Construction. Emission factors for facilities in India are sourced from the Central Electricity Authority.

Consolidation approach for emissions is based on operational control.

Process Scope 1 emissions are calculated using a mass balance methodology. Stationary combustion emissions are calculated through Enablon.

**GRI 305-2 Energy indirect (Scope 2) GHG emissions**

	Unit	FY2020	FY2021	FY2022
	tCO <sub>2</sub> -eq	83,913*	86,950	87,605

**Notes:**

Market-based energy indirect GHG emissions not applicable.

Only CO<sub>2</sub> is included in the calculation, as emissions of other gases are considered negligible in comparison.

Base year emissions not applicable for absolute Scope 2 emissions.

Emission factors for purchased electricity are sourced from the International Energy Agency. Emission factors for purchased steam, compressed air and hot water are sourced from the European Life Cycle Database (ELCD) based on fuel type, as shown on the next page.

Consolidation approach for emissions is based on operational control.

Scope 2 emissions are calculated through Enablon.

\* FY2020 data was corrected.

## APPENDIX: DATA

## GRI 305-3 Other indirect (Scope 3) GHG emissions

Other indirect GHG emissions (Scope 3)	Unit	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
	tCO <sub>2</sub> -eq	1,184,210	Not available	Not available	1,830,931	Not available	2,025,020

**Notes:**

Only CO<sub>2</sub> is included in the calculation, as emissions of other gases are considered negligible in comparison.

No biogenic CO<sub>2</sub> emissions.

The calculation includes upstream extraction, transportation, refining and distribution of feedstock materials and downstream distribution to customers.

FY2013 is taken as the baseline year because comprehensive and reliable energy data was not available for all plants in previous years. Base year Scope 3 emissions were 1,248,575 tCO<sub>2</sub>-eq.

Emission factors are summarized in the table below.

Scope 3 emissions were determined as part of an LCA. Data required for the LCA was obtained directly from Birla Carbon's manufacturing plants, ecoinvent (v3) and the Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) Model (2013). The impact assessment method used to quantify the global warming potential (GWP) impact was IPCC 2007 GWP 100a V1.02.

**Emission factors (EF) for fuel combustion from the ELCD**

Type	LCA EF	
	(tCO <sub>2</sub> -eq/MWh)	(tCO <sub>2</sub> -eq/GJ)
Motor gasoline	0.299	0.08
Gas oil, diesel	0.305	0.08
Residual fuel oil	0.31	0.09
Anthracite	0.393	0.11
Other bituminous coal	0.38	0.11
Sub-bituminous coal	0.385	0.11
Lignite	0.375	0.10
Natural gas	0.237	0.07
Municipal waste (non-biomass)	0.33	0.09
Wood	0.405	0.11

## APPENDIX: DATA

## GRI 305-7 Emissions

<b>Nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>) and other significant air emissions</b>	<b>Unit</b>	<b>FY2022</b>
Gross NO <sub>x</sub>	tonne	4,286
Gross SO <sub>x</sub>	tonne	25,408
Gross volatile organic compounds (VOC)	tonne	2,505
Gross PM	tonne	954

**Notes:**

The air emissions were measured through a direct continuous emissions monitoring system. Where direct emissions are measured, emission factors are sourced based on local regulatory requirements and guidelines.

The default methodology was direct measurement. Emissions were calculated using a mass balance when direct measurement was not available.

## GRI 306-3 Waste generated

<b>Waste generation</b>	<b>Unit</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Total waste generated	tonnes	24,563	25,579	35,659
Hazardous waste	tonnes	2,775	715	1,580
Non-hazardous waste	tonnes	21,788	24,864	34,078

**Note:**

The spike in our waste generation was caused by a one-time oil storage tank cleanout, which does not represent our everyday operations.



## APPENDIX: DATA

## GRI 306-4 Waste diverted from disposal

Weight of waste by type and disposal method	Unit	FY2020		FY2021		FY2022	
		Hazardous	Non-hazardous	Hazardous	Non-hazardous	Hazardous	Non-hazardous
Reuse	tonnes	98	2,449	-	1,576	72	1,252
Recycling	tonnes	3	8,332	52	8,128	21	10,167
Composting	tonnes	-	2,895	-	6,600	-	11,730
<b>Total</b>	tonnes	<b>101</b>	<b>13,676</b>	<b>52</b>	<b>16,304</b>	<b>93</b>	<b>23,149</b>

## GRI 306-5 Waste directed to disposal

Weight of waste directed to disposal	Unit	FY2020		FY2021		FY2022	
		Hazardous	Non-hazardous	Hazardous	Non-hazardous	Hazardous	Non-hazardous
Incineration	tonnes	905	165	87	174	212	210
Incineration (with recovery)	tonnes	-	-	2	-	50	11
Landfill	tonnes	1,769	7,948	575	8,386	1,226	10,708
<b>Total</b>	tonnes	<b>2,674</b>	<b>8,113</b>	<b>664</b>	<b>8,560</b>	<b>1,488</b>	<b>10,929</b>

## APPENDIX: DATA

## GRI 401-1 New employee hires and employee turnover

Employee hires and employee turnover FY2022	Total hires*	Hire rate	Total turnover	Turnover rate
Age: under 30 years	18	2.1%	11	1.3%
Age: 30–50 years	79	9.3%	46	5.4%
Age: over 50 years	9	1.1%	10	1.2%
Americas & Europe	21	2.5%	12	1.4%
Asia	42	5.0%	35	4.1%
Corporate Functions	23	2.7%	11	1.3%
Sales & Marketing	20	2.4%	9	1.1%
Female	31	3.7%	13	1.5%
Male	75	8.9%	54	6.4%
<b>Total</b>	<b>106</b>	<b>12.5%</b>	<b>67</b>	<b>7.9%</b>

**Total employees (management) = 846**

\* Total hires include internal and external hires.

## GRI 401-3 Parental leave

Return to work and retention rates after parental leave FY2022	Female	Male	Total
Employees entitled to parental leave	294	1,395	1,689
Employees that took parental leave	10	42	52
Employees that returned to work	6	40	46
Employees in employment 12 months after returning to work	5	25	30
Employees returning from parental leave in the prior reporting period	7	27	34
Return-to-work rate of those who took parental leave	60%	95%	88%
Retention rate of employees who took parental leave	71%	93%	88%

## APPENDIX: DATA

**GRI 403-8 Workers covered by an occupational health and safety management system**

<b>Employee coverage</b>	<b>Number</b>	<b>Percentage</b>
Those covered by an occupational health and safety (OHS) management system	2,205	100%
Those covered by an OHS management system that has been internally audited	2,205	100%
Those covered by an OHS management system that has been audited or certified by an external party	2,205	100%

<b>Contractor coverage</b>	<b>Number</b>	<b>Percentage</b>
Those covered by an OHS management system	1,029	100%
Those covered by an OHS management system that has been internally audited	1,029	100%
Those covered by an OHS management system that has been audited or certified by an external party	1,029	100%

**Note:**

No workers have been excluded.

**GRI 403-9 Work-related injuries**

	<b>Employees</b>	<b>Workers who are not employees but whose work is controlled by the organization (contractors)</b>
Number and rate of fatalities as a result of work-related injury	0	0
Number and rate of high-consequence work-related injuries (excluding fatalities)	2/0.086	2/0.075
Number and rate of recordable work-related injuries	17/0.74	12/0.45
Main types of work-related injuries	Slips, trips and falls	Slips, trips and falls
Number of hours worked	4,625,242	5,360,682

## APPENDIX: DATA

**GRI 403-10 Work-related ill health**

	Employees	Workers who are not employees but whose work is controlled by the organization
Number of fatalities as a result of work-related ill health	0	0
Number of cases of recordable work-related ill health	2	0
Main types of work-related ill health	COVID-19	N/A

**GRI 404-1 Average hours of training per year per employee**

Average hours of employee training FY2022	Senior management	Middle management	Junior management	Non-management
Female	7	11	24	23
Male	13	26	74	53

# UN Global Compact Index

## Birla Carbon 2022

This is Birla Carbon's annual United Nations Global Compact (UNGC) "Communication on Progress." Please see below for information on where the UNGC Principles are covered in our [2022 Sustainability Report](#) and supplementary materials.

UNGC PRINCIPLE	LOCATION IN BIRLA CARBON 2022 SUSTAINABILITY REPORT (or link to location of alternative source where relevant)
HUMAN RIGHTS	
1. <b>Businesses should support and respect the protection of internationally proclaimed human rights.</b>	<a href="#">Supplier management</a> <a href="#">Sustainable livelihoods</a> <a href="#">Ethics</a> <a href="#">Health and safety</a> <a href="#">Birla Carbon Human Rights Policy</a> <a href="#">Birla Carbon Code of Global Business Ethics and Compliance Standards</a> <a href="#">Birla Carbon Supply Chain and Procurement Policy</a>
2. <b>Businesses should make sure that they are not complicit in human rights abuses.</b>	<a href="#">Supplier management</a> <a href="#">Ethics</a> <a href="#">Birla Carbon Human Rights Policy</a> <a href="#">Birla Carbon Code of Global Business Ethics and Compliance Standards</a>
LABOUR	
3. <b>Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.</b>	<a href="#">Ethics</a> <a href="#">Birla Carbon Human Rights Policy</a> <a href="#">Birla Carbon Code of Global Business Ethics and Compliance Standards</a>
4. <b>Businesses should uphold the elimination of all forms of forced and compulsory labour.</b>	<a href="#">Ethics</a> <a href="#">Birla Carbon Human Rights Policy</a> <a href="#">Birla Carbon Code of Global Business Ethics and Compliance Standards</a> <a href="#">Birla Carbon Supply Chain and Procurement Policy</a>

UNGC PRINCIPLE	LOCATION IN BIRLA CARBON 2022 SUSTAINABILITY REPORT (or link to location of alternative source where relevant)
<b>5. Businesses should uphold the effective abolition of child labour.</b>	<a href="#">Supplier management</a> <a href="#">Ethics</a> <a href="#">Birla Carbon Human Rights Policy</a> <a href="#">Birla Carbon Code of Global Business Ethics and Compliance Standards</a> <a href="#">Birla Carbon Supply Chain and Procurement Policy</a>
<b>6. Businesses should uphold the elimination of discrimination in respect of employment and occupation.</b>	<a href="#">Ethics</a> <a href="#">Employee engagement</a> <a href="#">Birla Carbon Human Rights Policy</a> <a href="#">Birla Carbon Code of Global Business Ethics and Compliance Standards</a>
ENVIRONMENT	
<b>7. Businesses should support a precautionary approach to environmental challenges.</b>	<a href="#">Megatrends</a> <a href="#">Environment</a> <a href="#">Governance</a> <a href="#">Birla Carbon Environmental Policy</a> <a href="#">Birla Carbon Sustainability Policy</a> <a href="#">Birla Carbon Energy and Carbon Policy</a> <a href="#">Birla Carbon Product Stewardship Policy</a> <a href="#">Birla Carbon Supply Chain and Procurement Policy</a> <a href="#">Birla Carbon Water Stewardship Policy</a>
<b>8. Businesses should undertake initiatives to promote greater environmental responsibility.</b>	<a href="#">Sustainable Development Goals</a> <a href="#">Environment</a> <a href="#">Targets and progress</a> <a href="#">Birla Carbon Environmental Policy</a> <a href="#">Birla Carbon Sustainability Policy</a> <a href="#">Birla Carbon Energy and Carbon Policy</a> <a href="#">Birla Carbon Product Stewardship Policy</a> <a href="#">Birla Carbon Supply Chain and Procurement Policy</a> <a href="#">Birla Carbon Water Stewardship Policy</a>

UNGC PRINCIPLE	LOCATION IN BIRLA CARBON 2022 SUSTAINABILITY REPORT (or link to location of alternative source where relevant)
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**9. Businesses should encourage the development and diffusion of environmentally friendly technologies.**

[Research and development](#)  
[Environment](#)  
[Reducing our GHG emissions](#)  
[Water](#)  
[Air emissions](#)  
[Birla Carbon Environmental Policy](#)  
[Birla Carbon Sustainability Policy](#)  
[Birla Carbon Product Stewardship Policy](#)  
[Birla Carbon Energy and Carbon Policy](#)

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ANTI-CORRUPTION

**10. Businesses should work against corruption in all its forms, including extortion and bribery.**

[Sustainable Development Goals](#)  
[Supplier management](#)  
[Ethics](#)  
[Birla Carbon Code of Global Business Ethics and Compliance Standards](#)  
[Birla Carbon Security Policy](#)

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