

READY MIX CONCRETE BUSINESS

Commendable show of organisational resilience and mettle

The year 2020 has been extremely challenging for the Ready Mix Concrete business, since many key markets (including the metros) remained severely affected due to COVID-19. Enforced lockdowns brought construction activities to a complete standstill and issues of labour migration made the situation worse for Q2 & Q3 of the Financial Year 2020 for the Ready Mix Concrete business.

In order to mitigate the impact of the situation, an action plan focused on ‘Health, Cost and Cash’ was devised.

It is in such extraordinary situations that an organisation’s capabilities, resilience and mettle are tested. In these difficult times, the Ready Mix Concrete team managed to sail through. Be it in crisis management, ensuring the well-being of all employees and workers, implementation of stringent standards of procedure for plant resumptions, maintaining social distancing or management of the

Particulars	Unit	2020	2019	% Change
Ready Mix Concrete Production Volume	Lakh m <sup>3</sup>	22.70	35.24	(35.59)
Ready Mix Concrete Sales Volume	Lakh m <sup>3</sup>	22.70	35.32	(35.73)
Net Sale Value	₹ Crore	955.42	1,473.03	(35.14)
Operating EBITDA	₹ Crore	60.08	153.15	(60.77)
Op. EBITDA Margin	%	6.29	10.40	(4.11PP)

Value Added Solutions (‘VAS’)

The Ready Mix Concrete business, with its technical capabilities and a wide range of value-added solutions, stands out as the preferred partner for varied construction requirements. This vertical successfully launched two (2) new VAS—ACC Thermofillcrete and ACC Suraksha NX—during the year and ACC’s R&D team is working on various new initiatives.

8 Eco-labelled/Green products

Green concrete

ACC Ready Mix Concrete has both Environmental Product Declaration (‘EPD’) and GreenPro certification. As on date, ACC Ready Mix Concrete offers eight (8) products which have been certified by the Confederation of Indian Industry (‘CII’) as eco-labelled/green products. The Ready Mix Concrete team is now diligently working on developing Carbon Neutral/Net Zero Concrete and Ultra High Performance Concrete (‘UHPC’).

The Company has a nationwide network of eighty (80) state-of-the-art Ready Mix Concrete plants. For the past

receivables during lockdowns, the Ready Mix Concrete team’s performance was commendable.

Proactive measures were laid down to curtail cost and minimise losses, along with strict monitoring of the receivables. The YoY Ready Mix Concrete business receivables have been reduced by 32%.

The Ready Mix Concrete business saw a considerable revival in demand and market sentiments in the last quarter, and the business is back on delivering better EBITDA performance.

Despite a considerable drop of 35.7% in the top line for 2020, the Ready Mix Concrete business was able to close the year with a positive EBITDA of 6.29%. The focus on ‘Health, Cost and Cash’ amid COVID-19, resulted in satisfactory performance and the Company is confident that with the demand revival in 2021, the Ready Mix Concrete business will certainly bounce back and continue on its growth path and ambition of becoming ‘The Best and the Biggest’.

twenty-eight (28) years, ACC Ready Mix Concrete has been a key player in shaping India’s construction and infrastructure sector, constantly striving to enhance service standards and deliver value to customers by catering to both on-site and commercial projects.

DISCUSSIONS ON FINANCIAL PERFORMANCE VIS-À-VIS OPERATIONAL PERFORMANCE

For details on financial performance vis à vis operational performance:

Please refer to the Board’s Report 94

INTERNAL CONTROL SYSTEMS AND THEIR ADEQUACY

For details on Internal Control Systems and their Adequacy.

Please refer to the Board’s Report 95

SUSTAINABLE DEVELOPMENT

Since inception, ACC has been working towards achieving sustainability across its operations. During the year, the Company’s efforts continued with the same rigour. It conducted its business maintaining high standards of governance, respecting nature and demonstrating

social responsiveness towards its communities. Due to the growing awareness among stakeholders and their ever-increasing expectations from businesses, ACC has enhanced its focus on the key material issues, i.e. CO<sub>2</sub> emissions and circular economy. In line with the Parent Company, LafargeHolcim, which has signed the Net Zero pledge with Science Based Targets Initiative (SBTi), ACC has also committed to the SBTi in July 2020.

INDUSTRY RECOGNITION

Owing to the Company’s efforts at reducing carbon emissions, in 2020, ACC won the CII’s Climate Action Plan (CAP 2.0) Award in the Orient Category.

SD 2030 plan – Building for tomorrow

During 2019, ACC revisited its sustainability strategy and restated its targets for each pillar – Climate & Energy, Circular Economy, Environment and Communities. While COVID-19 impacted the Company’s overall operations in CY 2020, ACC performed well on most of these parameters.

For more details, refer to pages 49

A. Climate & Energy

During 2020, ACC reduced its specific CO<sub>2</sub> emissions to 493 kg/t of cementitious materials in comparison to 512 kg/t of cementitious material in 2019. While some of the levers affecting the CO<sub>2</sub> emissions, such as clinker factor, Thermal Substitution Rate (‘TSR’) and specific thermal energy have improved over last year, resulting in significant reduction of carbon footprint, there is a marginal increase in electrical energy consumption in 2020. This is mainly on account of the disruption across manufacturing processes due to COVID-19.

493 kg

CO<sub>2</sub> emissions per tonne of cementitious material

- Clinker factor  
The Company’s efforts continued to further reduce its average clinker factor across its full range of the cement portfolio. During 2020, the Company increased its blended cement portfolio from 89-90%. All these initiatives helped ACC to significantly reduce the average clinker factor by 1.37%.



- Thermal energy  
In 2020, owing to various efforts at energy conservation and process optimisation, ACC reduced its thermal energy consumption by 0.73% from 748 kcal/kg of clinker in 2019 to 742 kcal/kg of clinker in 2020. These efforts will continue to remain a focus area in 2021, also because they are an important lever for carbon emissions reduction.

- Green energy and power generation through waste heat recovery system  
During 2020, the Company’s three (3) captive wind farms in Maharashtra, Tamil Nadu and Rajasthan together generated ~32.30 Million units of renewable energy. To further enhance its renewable energy portfolio, the Company has installed two (2) solar power plants comprising 5.35 MWp solar photovoltaic plant at Jamul Cement Works, Chhattisgarh, and 380 kWp Solar PV plant at Kymore mines, Madhya Pradesh. These two (2) plants have together generated 2.49 Million units in 2020. Additionally, the Company consumed 49 Million units of solar power and 5 Million units of wind power through Power Purchase Agreement (PPA).

Thus a total of 85.27 Million units of green energy was consumed in 2020, which is slightly higher than last year’s consumption. The waste heat recovery system at Galgal Cement Works also generated ~47 Million units of electrical energy during the year. ACC’s waste heat recovery projects at two (2) plants in Jamul and Kymore are in an advanced stage and slated to be completed by 2022.

For more details, refer to pages 43



- **Alternative fuels and raw materials**  
Co-processing of waste in cement manufacturing is gaining momentum in the country as the preferred option as it addresses multiple benefits. It not only conserves traditional fuels and raw materials but also helps in reducing carbon footprint. It saves public funds by minimising the requirement of waste disposal facilities such as landfilling and incineration. On the social front, it generates employment and indirectly reduces the possibility of disease outbreak (due to municipal solid waste dumping). To enhance its co-processing capacity, the Company has set up two (2) pre-processing units and facilitated co-processing at eight (8) plants for the disposal of hazardous and non-hazardous waste, municipal solid waste for use as Refuse Derived Fuel (RDF) and biomass (non-cattle feed) in its kilns wherever permissible by law.

Through the 'Geocycle' brand, ACC continues its efforts to provide safe waste management solutions to industries and municipalities while meeting the highest standards of health, safety and sustainability. Geocycle is also promoting the use of alternative fuels in cement kilns through advocacy at appropriate forums, thereby building stakeholders' awareness in this regard. The Government's 'Swachh Bharat' programme,

coupled with the mega city growth solution to manage municipal waste through co-processing, is expected to get greater traction in future. With increased consumption of alternative fuels—0.29 Million tonnes—the Company has achieved TSR of 6.9% in 2020 compared to 5.6% in 2019.

6.9%

Thermal Substitution Rate in 2020

➤ For more details, refer to pages 43

**B. Circular Economy**

The concept of circular economy is being widely talked about, and ACC encourages the same by utilising various types of waste from other industries, termed Waste Derived Resources ('WDR'), into the cement manufacturing process. Besides, by using waste materials from power and steel industries, such as fly ash and slag to replace the clinker in the cement, the Company is facilitating co-processing of wastes and contributing to circular economy. During 2020, ACC consumed 5.33 Million tonnes of fly ash and 2.82 Million tonnes of slag, 0.43 Million tonnes of synthetic gypsum including Phosphogypsum and 0.57 Million tonnes of alternative fuels and raw materials in cement manufacturing. Additionally, 0.16 Million tonnes of WDR, comprising fly ash and slag were consumed in concrete production. Thus, overall, the Company has consumed 9.3 Million tonnes\* of WDR in the year 2020.

*\*Excluding crushed rock fines used in concrete*

9.3 MT

Total waste derived resources consumed in 2020

➤ For more details, refer to pages 44

**C. Environment Water**

During the year, various efforts were made to promote water conservation and harvesting through close monitoring and augmenting water harvesting structures in communities, and by optimising

processes. While specific freshwater consumption in cement operations remained almost same as 2019 with 77.8 litre/t of cementitious material, ACC reduced its specific water consumption in cement operations by ~9% from 165 litre/t of cementitious material in 2019 to 151 litre/t of cementitious material. The Company also consumed ~1.75 Million m<sup>3</sup> of harvested rainwater in its cement operations, which is ~50% of its total water consumption.

9%

Reduction in specific water consumption in 2020

➤ For more details, refer to pages 46

**Biodiversity**

The Company continued its efforts to conserve nature and preserve biodiversity. Under the 'B-Buzz' project, initiatives focused on the conservation of particular floral/faunal groups were undertaken. Additionally, in 2020, the Company planted ~76,000 trees at its various mining locations. Apart from this, plantations were also done at many plant locations and colonies.



➤ For more details, refer to pages 47

**Emissions**

Air emissions are a key environmental aspect of cement production. As an operating principle, the Company ensures that all its sites measure and manage air emissions to the extent possible. During the year, ACC has undertaken several initiatives to help bring emissions under control.

- **Dust emission control**  
Various maintenance activities were undertaken through in-house and third-party teams for rectification of ESP internals, replacement of damaged bags and so on. All the above

measures have together resulted in ensuring stack dust emissions in cement plants at <30mg/Nm<sup>3</sup>. There is ~27% reduction in specific dust emissions from 16.9 gm/t of cement in 2019 to 12.3 gm/t of cement in 2020.

- **NOx emission control**

NOx emission compliance was ensured through primary and secondary measures for NOx control and implementation of Selective Non-Catalytic Reduction (SNCR) systems in integrated cement plants in previous years. There is ~22% reduction in specific NOx emissions from 816 gm/t of cement in 2019 to 635 gm/t of cement in 2020.

- **SOx emission control**

The Company's SOx emissions are well within the specified regulatory limits and do not require major emission control measures. However, there is ~28% increase in specific SOx emissions from 64.2 gm/t of cement in 2019 to 82.4 gm/t of cement in 2020. This change is primarily due to the variation in the raw material quantity and change of fuel at one of our locations.

All of the Company's plants are required to have continuous online reporting of ambient air quality, effluents and process emission on a real-time basis on the websites of regulatory authorities and ACC has complied with this requirement. Monitoring of major stacks emissions (dust, NOx and SOx) of the Company's plants is done through the Technical Information System (TIS) commissioned at most of the plants, providing access to process and emission parameters to senior management at the plant and the corporate office.

**Green Building Centres ('GBCs')**

During 2020, the Company assisted in setting up 43 new GBCs to bring the total number of GBCs to 187 by the end of December 2020. All the GBCs have collectively helped in utilisation of 70,740 tonnes of fly ash, conservation of 1,53,271 tonnes of the Earth's natural topsoil and avoidance of 10,788 MT of CO<sub>2</sub> emissions during the year. Further, through this initiative, 31,477 low-cost houses have been facilitated through GBC products. In 2020, the total number of beneficiaries at GBC, who got direct livelihood support were ~3,150.

**D. People & Communities**

Aspects related to this pillar are covered in the following sections: