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## Calcium Carbonate is a renewable raw material

Around 4 % of earth crust is made of calcium carbonate, making it one of the most common raw materials in nature. Calcium carbonate is ubiquitous in nature and is continuously replenished by means of natural cycles in rivers, lakes & oceans or formed as minerals in the form of shells, skeletons, stalactites and stalagmites. Commercial grades of calcium carbonate are produced from natural sources such as limestone, chalk or marble which are widely available around the world.

While a substantial increase of the use of calcium carbonate has been observed over the last decades, there is no scarcity of calcium carbonate deposits and there are proven reserves/resources for many centuries. More so, adequate and sustainable management practices have been implemented to foster use of resources efficiently. The results of two recent independent university studies<sup>1</sup> conclude that the annual replenishment of calcium carbonate varies from 8.8 to 14.5 billion tons/year in different environments. The annual consumption of calcium carbonate<sup>2</sup> in various markets (infrastructure, cement,...) being in a range of 4.5 Billion t/year, the replenishment rate (according to the ISO 14021 definition) exceeds the consumption rate. Therefore, **calcium carbonate meets the criteria for a renewable material.**

Thus we can conclude that, calcium carbonate is a bio-mineralised or naturally produced resource which is constantly renewed by various natural processes, ensuring that reserves are available for many future generations. In addition, the footprint of extracting and processing calcium carbonate (Ground Calcium Carbonate and Precipitated Calcium Carbonate) is low as shown by life cycle inventory data compiled by CCA-Europe<sup>3</sup>.

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<sup>1</sup> **Calcium Carbonate Cycle**, De Rafelis M., Université Pierre & Marie CURIE, Paris – France, October 2013.

**Ocean Carbonates: Global Production and Accumulation**, Reuter M., Institute for Earth Sciences, Karl-Franzens-University Graz, Graz, October 2013.

<sup>2</sup> European Commission. 2014. **Report on Critical raw materials for the E.U. Non-critical Raw Materials profiles**. Pp. 1-142.

<sup>3</sup> **GaBi platform data**: <http://www.gabi-software.com/uk-ireland/databases/gabi-data-search/>;

**All documentation in GaBi**: <http://www.gabi-software.com/uk-ireland/support/gabi/gabi-database-2020-lci-documentation/>