

# 20. Mosa



## Soup of the Day



Sustainable design is the main strategic principle of Royal Mosa. The Maastricht-based ceramic tile manufacturer that was the first in the world to bring Cradle to Cradle certified tiles on the market in 2009. Industrial designer José Maase was there from the start: “The challenge is to design a product in such a way that it doesn’t harm future generations”.

**I hope more and more designers will take on this responsibility. In any case, I know what I'm doing it for. I'm proud of my trade once more.**

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“For me not everything has to be new, newer, newest. I’m just as happy to buy second hand. This doesn’t mean that I’m for scarcity and believe that no new chairs should ever be made.” She gestures enthusiastically. “It’s about designing intelligently and being conscious about possible consequences on the environment and on the people around you. The step Mosa has taken towards Cradle to Cradle has given me as a designer a different view on things.”

Ninety per cent less fine dust, 17 per cent CO2 emission reduction per kilogram of end product during the past decade, a market of which 85 per cent lies within a 500 kilometre radius and sustainably run quarries. Mosa’s policy and production processes were already based on eco-friendliness long before Cradle to Cradle principles were taken on board. This was partly enforced by legislation and regulations and for cost-saving reasons, but it was also driven by an ecological sense of responsibility. The ‘Let’s cradle’ conference that was held in its hometown in 2007 “led to a new philosophy, explains Maase: Mosa went Cradle to Cradle. The management organised a competition among its employees resulting in 30 ideas for a more eco-friendly policy. Project groups then started focusing on the main spearheads, which varied

from adapting the production process to integrating a digital archiving system in order to use less paper. This eventually led to their greatest milestone: Cradle to Cradle certification. ”

Meanwhile, Mosa has aimed even higher. It invested 1 million euro, especially in the system to be able to process other material streams alongside new raw material, such as tile waste. Assisted by the EPEA (agency of Cradle to Cradle co-founder Michael Braungart), the first efforts were rewarded: all floor tiles receiving a Basic certificate and glazed wall tiles achieving a Silver certification. At this stage brightly coloured wall tiles, such as red, ultra mat and silk mat glaze, are yet to be certified. “Certain colours can only be made using harmful substances. Lead of course doesn’t leach out -also not after use- but it doesn’t meet the criteria because the supplier’s employees can be exposed to it. We are now cooperating with the supplier on the development of lead-free glaze, however, results shouldn’t be expected immediately.”

**Building something new from something old, without having to extract new raw materials.**

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This is also the heart of the matter. Working fully according to the Cradle to Cradle philosophy requires a lot of time and money, even for businesses that already had environmental awareness high on the agenda. Another example is the problem encountered during a joint project with architect’s firm Koppert + Koenis, which was ordered by the local authority of Maastricht to create the Netherlands’ most sustainable swimming pool. Mosa was appointed as ‘tile partner’. The architects wanted to cover the façade with tiles made out of recycled tile waste. Building something new from something old, without having to extract new raw materials. “A complex request, as you can never be sure which heavy metals

have been processed in old tiles of other factories. We can't determine this easily yet. This is why, after long discussions, we opted for tiles produced with new raw materials, but with a C2C certificate."

Another trial project has been set up with waste processing company Van Gansewinkel to develop a logistics system to collect tile waste. Originally, the companies targeted tile waste from contractors, builder's merchant's and waste disposal plants, which Mosa would then try to recycle. The current focus has changed to major renovation projects. Locations in which old buildings are replaced by new ones aren't eligible, to save extra demolition costs. Moreover, the tiles that need to be placed must come from Mosa, so money is earned in any case. "It took a long time before a sufficient amount of tile waste had been collected to actually be able to begin a recycling process. My task is to use the discarded tiles in a variety of colours as the basis of a new, responsible product. As a designer, you use a kind of soup of the day to achieve this, which is a major challenge."

**It's about designing intelligently and being conscious about the possible consequences on the environment and on the people around you.**

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Maase will soon be examining a huge mountain of collected tile waste. Mosa will assess whether the regulations, determined by the tile manufacturer, have been properly met, as only waste without PVC, wood, red shards and the remains of bathroom fixtures are suitable for processing. "We already recycle own tile remnants in the floor tile factory for recycling, this will now be accompanied by other tile waste. We cannot yet make tiles consisting of more than 45 per cent recycled mass as these wouldn't meet our quality requirements in the field of strength and porosity. Eventually, after a lot of research,



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we hope to force this up so we need less clay for our production.”

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Maase smiles. “Of course you can’t get everything you want immediately. What’s so good about my job is that I can at least take on this challenge. Before becoming engrossed in Cradle to Cradle, I had regular doubts about my profession. As an industrial designer you create products and the consequence is that there is even more waste in the world. I now realise it doesn’t have to be this way. You have to think outside the box of ‘in this factory we make tiles, our responsibility ends when the customer buys them’. This means that you need to fully reconsider your design processes.” All the same, Maase doesn’t believe that Cradle to Cradle is the be all and end all. For instance, she agrees with certain critics that guidance and certification should be carried out by different, independent parties, unlike now. “But this method enables companies to take very important steps creating products that last a lot longer in the future and we will be using an increasing amount of upcycled raw materials. I hope more and more designers will take on this responsibility. In any case, I know what I’m doing it for. I’m proud of my trade once more.”

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Gwen Teo for REcentre  
Interviewee / José Maase, Industrial designer

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Sector • Tile industry

Year of foundation • 1883

Number of employees • 575

Turnover (2009) •  
120 million EUR