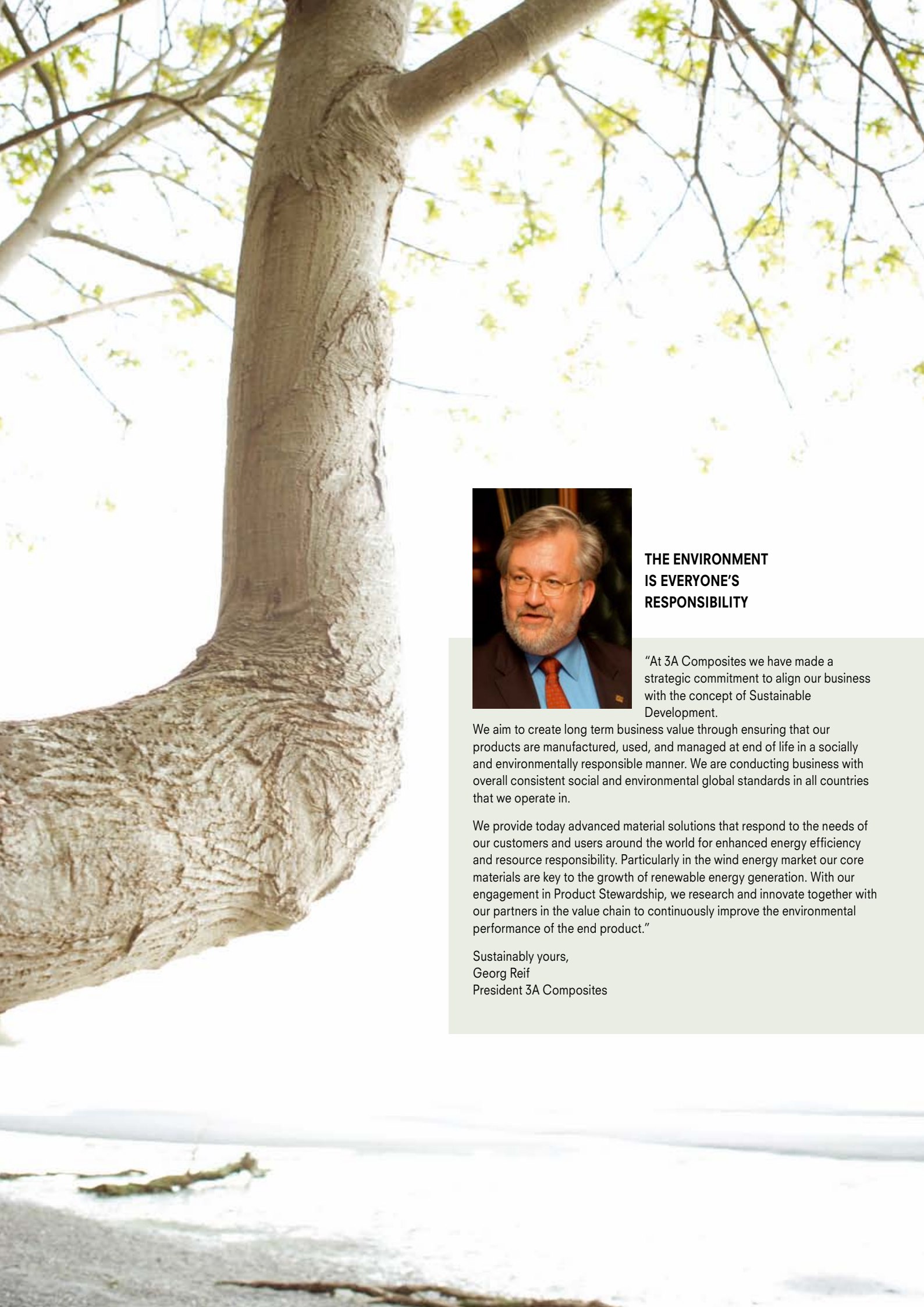


ALUCOBOND®

**ALUCOBOND® Today -
For Many More Tomorrows.**



European Environmental Guide



**THE ENVIRONMENT
IS EVERYONE'S
RESPONSIBILITY**

"At 3A Composites we have made a strategic commitment to align our business with the concept of Sustainable Development.

We aim to create long term business value through ensuring that our products are manufactured, used, and managed at end of life in a socially and environmentally responsible manner. We are conducting business with overall consistent social and environmental global standards in all countries that we operate in.

We provide today advanced material solutions that respond to the needs of our customers and users around the world for enhanced energy efficiency and resource responsibility. Particularly in the wind energy market our core materials are key to the growth of renewable energy generation. With our engagement in Product Stewardship, we research and innovate together with our partners in the value chain to continuously improve the environmental performance of the end product."

Sustainably yours,
Georg Reif
President 3A Composites

LEADERSHIP IN ENVIRONMENTAL STEWARDSHIP

3A Composites Singen has worked diligently with numerous building, chemical and aluminium associations, to achieve acknowledgement, conformity and membership.

3A Composites is the first to have an Environmental Product Declaration (EPD) for our aluminium composite material. There are cooperations with numerous green building associations, five-winds, PE International and universities across Europe.

3A Composites Singen is a

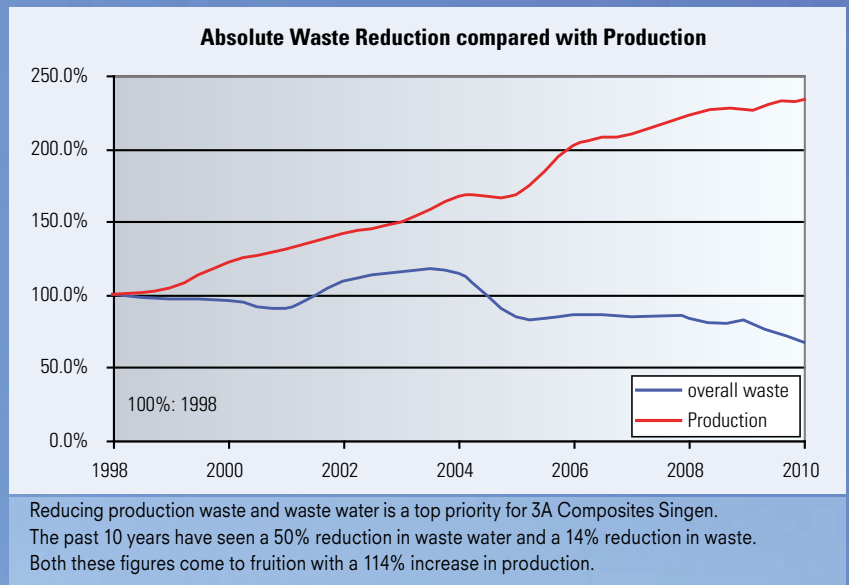
- founder member of the German Association for Sustainable Buildings (DGNB); Member of the World Green Building Council (WGBC)
- active member of the European Aluminium Association (EAA)
- member of the European Coil Coating Association (ECCA)

All materials and substances which are used in ALUCOBOND® are pre registered according to the REACH regulation in the EU.



PAINT PROCESS

3A Composites Singen is a member of the European Coil Coating Association (ECCA) and a top performer in coil coating standards and emissions control. During the coil coating process, 99% of all fugitive volatile organic compounds (VOC's) are captured. Excess paint is recovered and not burned as waste and all solvents used to clean the machinery are collected and recycled.



CONTINUOUSLY REDUCING THE ENVIRONMENTAL FOOTPRINT OF ALUCOBOND®

Over the past decade, the building industry has moved towards a more environment-friendly approach to design. By using methods that incorporate sustainable materials and processes, the impact on the environment can be reduced. In fact, a growing number of countries are requiring architects to utilise environment-friendly methodologies in new construction.

The building industry is becoming more aware of the environmental footprint that each product leaves, which is why Life Cycle Analysis (LCA) are becoming an important part of supplier product stewardship and the building material selection process. The demand for more environmentally sustainable products makes ALUCOBOND® the choice of architects, builders and developers who want to make a positive impact on the environment.

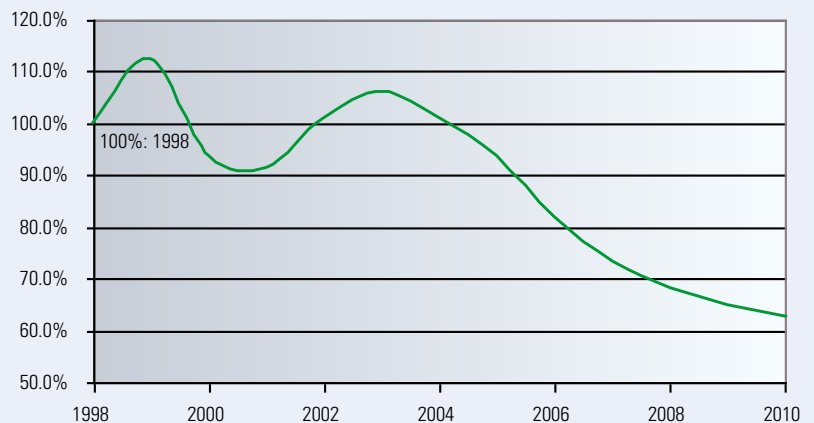


CO₂ OUTPUT REDUCTION

As part of 3A Composites's EHS (environment, health and safety) program, 3A Composites Singen has placed a great deal of effort in reducing its CO₂ emissions during the production of ALUCOBOND®. The first initiative that has been implemented has been designed to minimise CO₂ emissions in the supply of the core material of ALUCOBOND®, ALUCOBOND® plus and ALUCOBOND® A2. With a change of transportation mode from truck to train, 54% of trucking distance can be saved, which equates to a 17% reduction in CO₂ output in ALUCOBOND® supplies.

Other ways 3A Composites Singen helps reduce emissions is to participate in the UNFCCC (United Nations Framework Convention on Climate Change) with a project called CDM Solar cooker Project Aceh1, Indonesia. This project reduces the CO₂ output by an estimated 24,500 tonnes over seven years, or 3,500 tonnes per year.

CO₂-Reduction due to Energy Reduction (per m²)



A 32% reduction of CO₂ emissions per m² has also been achieved over the past 10 years in the production process, promoted through 3A Composites Singen's strong continuous improvement team.

RESPONSIBLE ENVIRONMENTAL PRACTISES

SANDWICH CONCEPT REDUCES ENERGY INPUT

Given the well-known fact that aluminium requires large amounts of energy to be produced, the portion of aluminium to manufacture ALUCOBOND® is by far less compared to flat sheet aluminium. Therefore energy consumption is significantly less whilst keeping equal rigidity properties.



INVESTMENT

At 3A Composites Singen, the importance of environmental sustainability is highlighted, through proper investment in cleaner processes. Over the last 10 years 3A Composites Singen has spent up to a 16.7% of their total year's investment outlay on environmentally friendly initiatives and processes. This means cleaner air, cleaner waterways and less noise pollution for the surrounding area.

SETTING THE STANDARDS OF TOMORROW

RECYCLING

All materials used in ALUCOBOND® are fully recyclable. Aluminium, which is used for the outer skins of ALUCOBOND®, is one of the most recycled materials of the world.

Aluminium can be recovered whenever the building is dismantled.

- 92% of aluminium used in residential and non residential buildings is collected for reuse or recycling across Europe.
(According to the Delft study and EAA 2004)

The polyethylene used in the core of ALUCOBOND® is one of the most energy-efficient materials to recycle and can be retreated and reused.



DEDICATION TO ENVIRONMENT, HEALTH AND SAFETY

3A Composites prides itself on being a steward of the environment and strives to minimize the effect that we may have on our surroundings. We've put in place a series of initiatives and procedures that demonstrate our commitment to preserving the communities, employees and environment for generations to come.



- 3A Composites Singen participates in the Alcan Green House Gas (GHG) Target program to reduce GHG emissions company-wide with an emphasis on energy usage reduction.
 - certified according to UNFCCC Reg. Nr. 0218 (TÜV SÜD Certification Body climate and energy)
- 3A Composites Singen has a Groundwater Protection Plan that requires monitoring of storm run-off and regular site inspections, as well as review of the management plans.
 - certified according to DIN EN ISO 14001:2004 (environmental management system)
- 3A Composites Singen has a Spill Prevention Contingency and Control Plan as well as an Emergency Response Plan to protect the environment and personnel in case of emergency incidents.
 - certified according to DIN EN ISO 14001:2004 (environmental management system)
- 3A Composites Singen employs numerous quality control checks and procedures that conform with, and exceed industry standards.
 - certified according to DIN EN ISO 9001:2008 (quality management system)
- 3A Composites Singen is inspected by the required governmental agencies but is also audited by third parties as part of the ISO 14001 and OHSAS 18001 requirements. Additionally, 3A Composites conducts a periodic comprehensive EHS audit as well as internal EHS audits by site personnel.
 - certified according to OHSAS 18001:2007 (employment protection management system)
 - certified according to Z-33.2-6:2008-2013 (certificate of conformity)
- Recycling programs at 3A Composites Singen include pallets (wood), aluminium, plastic, oils and laquers.



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