

# PRODUCT LIFE-CYCLE

## SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction / demoltion	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

modeled as inert waste, and disposal of pallet packaging waste (0.0204 kg) as untreated wood with a 50 km transport distance to landfill.

### PRODUCT USE AND MAINTENANCE (B1-B7)

No use-phase emissions, maintenance, or operational impacts are associated with GatorBar. As a passive, embedded structural reinforcement product, it does not require energy, water, maintenance, or material replacement during the reference service life. Modules B1–B7 are not declared.

Air, soil, and water impacts during the use phase have not been studied.

### PRODUCT END OF LIFE (C1-C4, D)

At end of life, GatorBar remains embedded within concrete and is not separated during demolition or recycling of the host structure. Therefore, no additional processing or transport is assigned in C1–C3. Module C4 includes landfill treatment of installation losses only (0.05 kg per declared unit). No benefits or burdens are declared in Module D.

### EXCLUDED PROCESSES

The following processes have been excluded from the system boundary due to their insignificant contribution to overall environmental impacts, in accordance with EN 15804+A2, section 8.2:

- Manufacture of equipment used in production, buildings, or other capital goods
- Environmental impacts from infrastructure, construction, production equipment, and tools not directly consumed in the production process
- Personnel-related impacts, such as commuting
- Research and development activities
- Long-term emissions beyond the product's reference service life