CIBSE TM65 Embodied Carbon 'Mid-level' Calculation

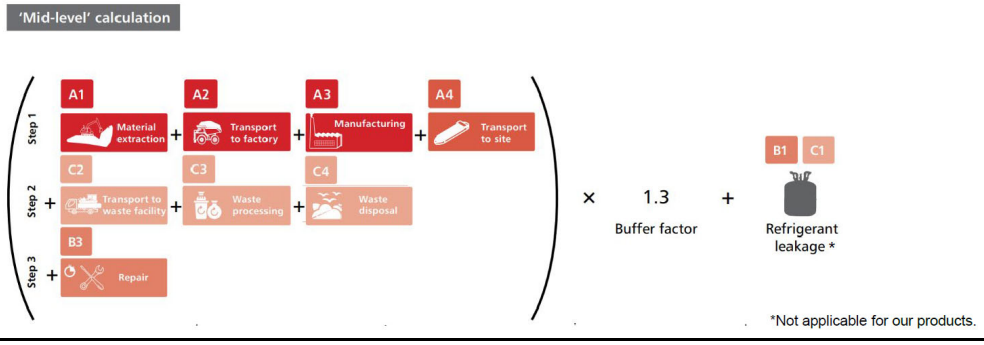
Assesment Date:	10.11.2023	Embodied Carbon Result with 'TM65 Calculation' Method Total:
Organisation:	Airflow Developments Ltd	
Contact email:	info@airflow.com	**1150 kg CO_2e**

DUPLEXbase PS 1100 - Product Information

Type of product	Mechanical Ventilation with Heat Recovery (MVHR)
Maximum power input (kW)	0.78
Product weight (kg)	169
Material breakdown for at least 95% of the product weight? (Y/N)	Y
Service life of the product (years)	15
Energy consumption of the factory per kg of product (kWh)	0.58
Location of manufacture	Europe
Product Complexity	Category 3: High

TM65 Calculation Methodology

TM65 calculation methodology outlines the need for product embodied carbon assessment related to building services engineering systems. Embodied carbon is understood as the greenhouse gas emissions associated with the manufacture of a product, its installation, maintenance, repair, replacement, and end of life. It covers the whole life cycle, excluding operational aspects and the potential recovery, reuse or recycling of materials. [Ref. CIBSE TM65 Embodied carbon in building services: A calculation methodology (2021)]



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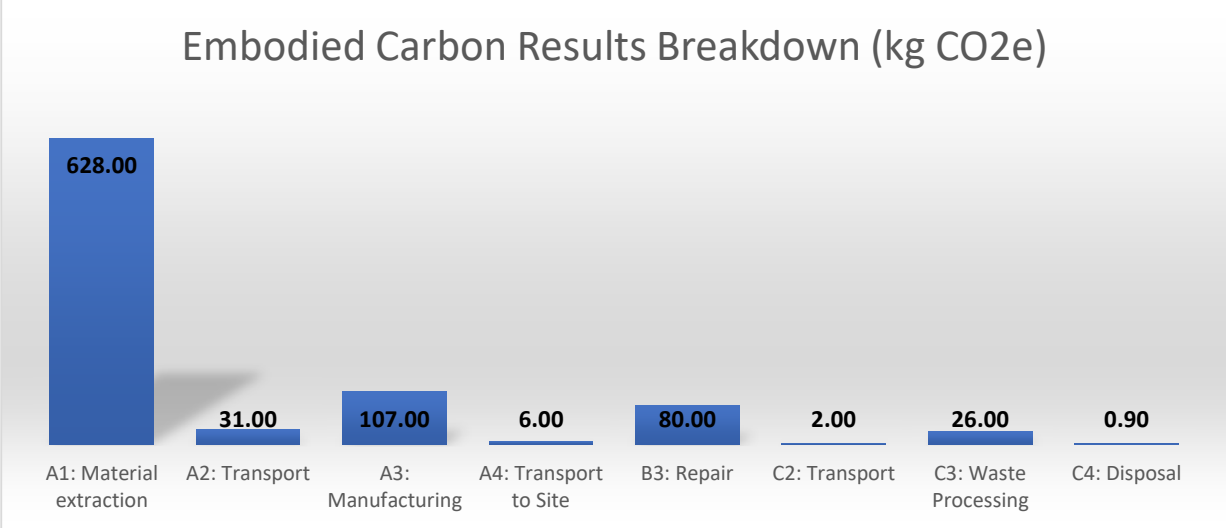
Embodied Carbon Results Breakdown (kg CO_2e)	
A1: Material extraction	628.00
A2: Transport	31.00
A3: Manufacturing	107.00
A4: Transport to Site	6.00
B3: Repair	80.00
C2: Transport	2.00
C3: Waste Processing	26.00
C4: Disposal	0.90

Total embodied carbon results (kg CO_2e) Mid-Level:	1150



Assumptions

A1: Material carbon coefficient source	TM65 Table 2.1
A2, A4 and C2	TM65 Table 4.7 & Table 4.8
A2 and A3 Product complexity	TM65 Table 4.9
A3: Manufacturing	TM65 Table 4.10 & Table 4.11
A4: Transport to site	TM65 Table 4.12
C3 and C4	TM65 Table 4.14 & Table 4.15
B3: Repair	10% (TM65 Assumption)

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