



TUNLEY
ENVIRONMENTAL



CARBON CALCULATION REPORT

For

Optima Products Limited

**Emissions from Transporting
Optima's Products to Dubai**



Overview

Tunley Engineering conducted the calculations reported in this document to provide OPL with the expected carbon emissions that will result from freighting their products between Optimal Products Limited in Radstock, UK and Optima Partitions in Dubai.

Data

Emission factors were taken from Defra, 2023 for all freighting activities (Table 1). Data are reported in Table 2. Only the transportation of trackwork is considered in this assessment (*i.e.*, excluding glass).

Table 1 Emission factors.

Item	Distance (km)	Emission factor (kgCO ₂ e/tonne.km)
Leg 1: Rigid HGVs between Radstock and London Gateway Port	277	0.2146
Leg 2: Sea freight between London Gateway Port and Jebel Ali Port	12,805	0.0203
Leg 3: Rigid HGVs from Jebel Ali Port to Optima Partitions LLC, Warehouse No.28, Al Khayat Avenue, Al Quoz, Dubai, United Arab Emirates	16.4	0.2146



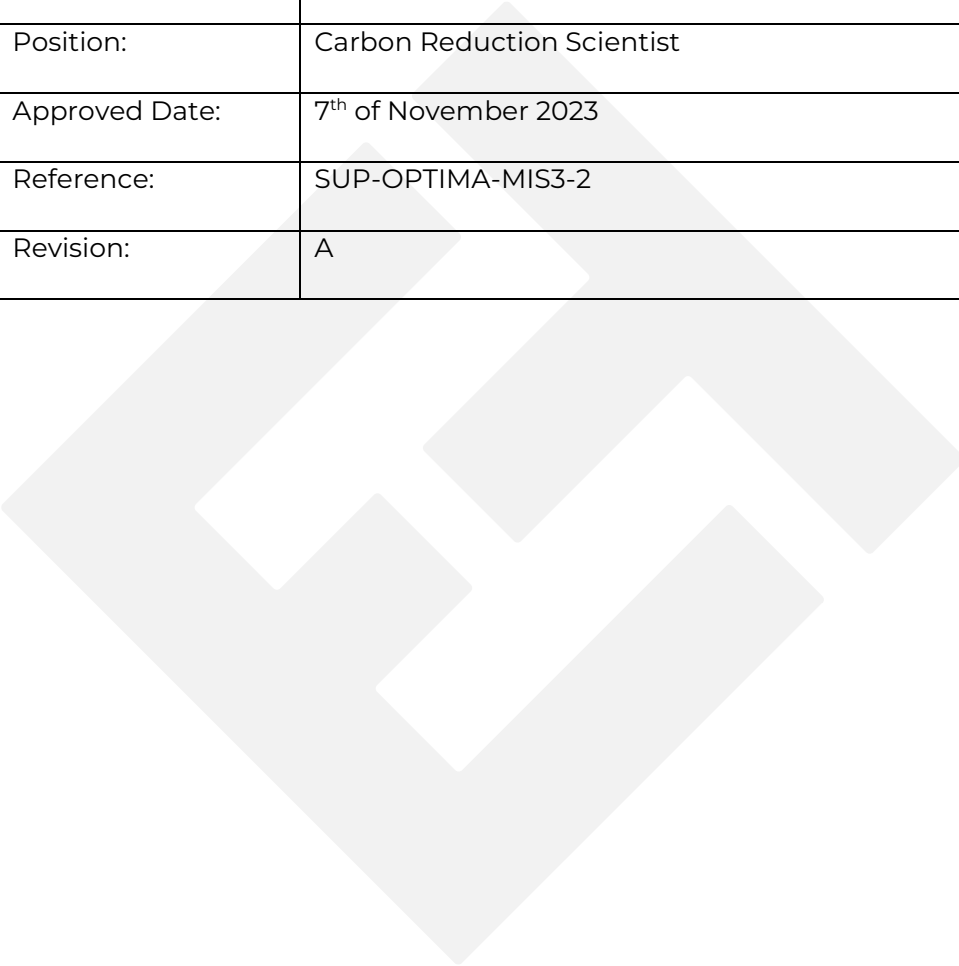
Table 2 Emissions from UK-Dubai freighting for OPL products.

	Item	Self-weight (kg)	Package weight (kg)	Total weight (kg)	Emissions (kgCO ₂ e)
Partition	Optima 117+ 12.8mm - Cat I	8.6	25	34	10.8
Partition	Optima 117+ 12.8mm - Cat II	18.7	25	44	14.1
Partition	Optima 117+ 12.8mm - Cat III	66.1	25	91	29.4
Partition	Optima 117+ 16.8mm Cat I	11.4	25	36	11.7
Partition	Optima 117+ 16.8mm Cat II	22.9	25	48	15.4
Partition	Revolution Plus 54 (Single Glazed) - Cat II	19.8	25	45	14.4
Partition	Revolution Plus 54 (Single Glazed) - Cat II	27.4	25	52	16.9
Partition	Revolution 54 Plus (Double Glazed) - Cat I	19.8	25	45	14.4
Partition	Revolution 54 Plus (Double Glazed) - Cat II	26.5	25	52	16.6
Partition	Revolution 54 Plus (Double Glazed) - Cat III	61.8	25	87	28.0
Partition	Revolution 100 (Single Glazed) - Cat I	31.9	25	57	18.3
Partition	Revolution 100 (Single Glazed) - Cat II	52.8	25	78	25.1
Partition	Revolution 100 (Single Glazed) - Cat III	48.4	25	73	23.7
Partition	Revolution 100 (Double Glazed) - Cat I	32.5	25	58	18.5
Partition	Revolution 100 (Double Glazed) - Cat II	53.3	25	78	25.2
Partition	Revolution 100 (Double Glazed) - Cat III	49.0	25	74	23.8
Door	Edge Symmetry (Single Glazed)	86.1	37.5	124	39.8
Door	Edge Symmetry (Double Glazed)	102.2	37.5	140	45.0
Door	Edge Affinity (Single Glazed)	92.5	37.5	130	41.9
Door	Edge Affinity (Double Glazed)	100.0	37.5	138	44.3
Door	Elite Symmetry (Double Glazed)	106.5	37.5	144	46.4
Door	Elite Affinity (Double Glazed)	105.8	37.5	143	46.2



APPROVAL

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