

ESR Westlink Stage 2

Building materials

Construction site operations

Energy consumption, annual

Water consumption, annual

Maintenance, annual

Calculation period

Emissions and removals

Building area

Clear

Material

Country

Data source

Type

Upstream

CO2e

Unit

Properties

Save

Fill in the material consumptions by material type. You may fill in all materials lumped together, or on separate rows for example by type of structure. Unless instructed otherwise, use gross amounts (incl. losses). Materials can be added in any section. [Material selection help](#).

Completeness (%) and plausibility checker (-)

1. Foundations and substructure

Materials in the foundations will never be replaced, no matter assessment period length (except for RE2020 and FEC tools). For BREEAM UK Mat 1 IMPACT equivalent provide the data for site excavation fuel use here, choose resource Excavation works.

Foundation, sub-surface, basement and retaining walls [Compare answers](#) [Create a group](#) [Move materials](#)

Start typing or click the arro

2. Vertical structures and facade 13139 Tonnes CO2e - 23 %

External walls and facade [Compare answers](#) [Create a group](#) [Move materials](#)

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Resource	Quantity	CO2e	Comment	Classification	Transport, kilometers
Sandwich panel, for controlled e	21387.8 m2	1,441t - 3%	Basic Wall		350 Trailer combination,
Sandwich panel, for controlled e	765.01 m2	52t - 0.1%	Basic Wall		350 Trailer combination,
Hot-rolled steel coils (alloyed ste	2134.46 m2 x 30 mm	1,325t - 2%	Basic Wall		580 Trailer combination,
Ready-mix concrete, Australian aver	676.41 m2 x 150 mm	43t - 0.1%	Basic Wall		200 Concrete mixer truc
Membranes, FPO/PVC-P waterproof	568.55 m2	8.3t - ~0%	Basic Wall		350 Trailer combination,
Hot-rolled steel coils (alloyed ste	164.87 m2 x 30 mm	102t - 0.2%	Basic Wall		580 Trailer combination,
Recovered solid-strip hardwood floo	6.23 m3	0.54t - ~0%	Rectangular Mullion		560 Trailer combination,
Ready mix concrete (BF slag), 3,000	118.72 m2 x 20 mm	1.1t - ~0%	Basic Wall		200 Concrete mixer truc
Recovered solid-strip hardwood floo	2.32 m3	0.2t - ~0%	Rectangular Mullion		560 Trailer combination,
Float glass, single pane, generic,	28.58 m2 x 25 mm	5.1t - ~0%	System Panel		200 Trailer combination,
Hot-rolled steel coils (alloyed ste	25.73 m2 x 30 mm	16t - ~0%	System Panel		580 Trailer combination,
Glass, body-tinted, dark grey, 4	19.61 m2	0.42t - ~0%	System Panel		200 Trailer combination,
Glass, body-tinted, dark grey, 4	94.55 m2	2t - ~0%	System Panel		200 Trailer combination,
Float glass, single pane, generic,	64.49 m2 x 0.0 mm	0.16t - ~0%	System Panel		200 Trailer combination,
Steel sheets, generic, 80% recycled	23944.09 m2 x 30 mm	9,561t - 17%	Basic Wall		580 Trailer combination,
Hot-dip galvanized steel plate with	14865.58 m2	116t - 0.2%	Basic Wall		580 Trailer combination,
Water-based enamel paint, semi-glos	4479.62 m2	13t - ~0%	Basic Wall		800 Large delivery truck
Water-based enamel paint, semi-glos	6231.88 m2	19t - ~0%	Basic Wall		800 Large delivery truck
Render finishing, 10 mm	42775.6 m2	421t - 0.7%	Basic Wall		Data by constituent

Columns and load-bearing vertical structures [Compare answers](#) [Create a group](#) [Move materials](#)

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Resource	Quantity	CO2e	Comment	Classification	Transport, kilometers
Ready-mix concrete, normal-strength	25.09 m3	12t - ~0%	Concrete - Rectangular -		200 Concrete mixer truck

Help

Internal walls and non-bearing structures ⇄ Compare answers 📁 Create a group 🔗 Move materials

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3. Horizontal structures: beams, floors and roofs ☁️ 43432 Tonnes CO₂e - 77 %

Floor slabs, ceilings, roofing decks, beams and roof ⇄ Compare answers 📁 Create a group 🔗 Move materials

Start typing or click the arro

Resource ⬇	Quantity ⬇	CO ₂ e ⬇	Comment ⬇	Classification 🔍 ⬇	Transport, kilometers 🔍 ⬇
Ready-mix concrete, C32, GBlend (Ho ?	62335.41 m2 ▼ x 200 mm	5,358t - 9%	Floor 📄		200 Concrete mixer tru
Asphalt pavement mixture, 50% RAP, ?	37943.61 m2 ▼	465t - 0.8%	Floor 📄		200 Dumper truck, 19 t
Ready-mix concrete, Australian aver ?	13672.04 m2 ▼ x 200 mm	1,473t - 3%	Floor 📄		200 Concrete mixer tru
Ready-mix concrete, C32, GBlend (Ho ?	8608.83 m2 ▼ x 100 mm	370t - 0.7%	Floor 📄		200 Concrete mixer tru
Precast concrete wall elements (sol ?	7939.46 m2 ▼ x 100 mm	414t - 0.7%	Floor 📄		200 Trailer combinatio
Ready-mix concrete, Australian aver ?	7939.46 m2 ▼ x 100 mm	428t - 0.8%	Floor 📄		200 Concrete mixer tru
Ready-mix concrete, C32, GBlend (Ho ?	348.4 m2 ▼ x 500 mm	75t - 0.1%	Floor 📄		200 Concrete mixer tru
Ready-mix concrete, C32, GBlend (Ho ?	454.14 m2 ▼ x 200 mm	39t - 0.1%	Floor 📄		200 Concrete mixer tru
Ready-mix concrete, C32, GBlend (Ho ?	380.61 m2 ▼ x 100 mm	16t - ~0%	Floor 📄		200 Concrete mixer tru
Precast concrete wall elements (sol ?	305.12 m2 ▼ x 100 mm	16t - ~0%	Floor 📄		200 Trailer combinatio
Hollow core concrete slabs, generic ?	305.12 m2 ▼ x 100 mm	7.6t - ~0%	Floor 📄		200 Trailer combinatio
Plasterboard, 12.5 mm, 10kg/m2, 800 ?	147.74 m2 ▼	0.4t - ~0%	Compound Ceiling 📄		200 Trailer combinatio
Ready-mix concrete, C32, GBlend (Ho ?	3.3 m2 ▼ x 150 mm	0.21t - ~0%	Floor 📄		200 Concrete mixer tru
Steel sheets, generic, 80% recycled ?	85905.88 m2 ▼ x 30 mm	34,304t - 61%	Basic Roof 📄		580 Trailer combinatio
Asphalt pavement mixture, 30% RAP, ?	20567.7 m2 ▼	289t - 0.5%	Floor 📄		200 Dumper truck, 19 t
Water-based enamel paint, semi-glos ?	58146.12 m2 ▼	173t - 0.3%	Basic Roof 📄		800 Large delivery truc
📄 Plasterboard ? 🔍	605.83 m²	3.4t - ~0%	Basic Roof 📄		Data by constituent

4. Other structures and materials ☁️ 21 Tonnes CO₂e

Other structures and materials ⇄ Compare answers 📁 Create a group 🔗 Move materials

Start typing or click the arro

Resource ⬇	Quantity ⬇	CO ₂ e ⬇	Comment ⬇	Classification 🔍 ⬇	Transport, kilometers 🔍 ⬇
Ready-mix concrete, C25, FBlend (Ho ?	29.5 m3 ▼	9.5t - ~0%	_NT Dock Leveler 📄		200 Concrete mixer truck
Single leaf concrete cladding panel ?	14.47 m3 ▼	11t - ~0%	_NT Dock Leveler 📄		200 Trailer combination, 4
Engineered stone quartz countert ? 🔍	0.02 m3 ▼	0.38t - ~0%	Stone top, 2 rows 📄		350 Trailer combination, 4

Windows and doors [↔ Compare answers](#) [+ Create a group](#) [+ Move materials](#)

Start typing or click the arro

Resource	Quantity			CO ₂ e	Comment	Classification	Transport, kilometers	
Steel door, 86x36x1.34in ?	0.05	m2	x 0.0	mm 0.28kg - ~0%	GATE - Swing Double		550	Trailer combinatic
Hot-dip galvanized steel sheets, re ?	1.63	m2	x 0.0	mm 5.1kg - ~0%	Swing - Single		580	Trailer combinatic
Softwood timber, kiln-dried, sawn, ?	0.27	m2	x 0.0	mm	Swing - Single		560	Trailer combinatic
Float glass, single pane, generic, ?	10.74	m2	x 0.0	mm 27kg - ~0%	COM_Panel_Fixed		200	Trailer combinatic
Hot-dip galvanized steel sheets, re ?	0.78	m2	x 0.0	mm 2.4kg - ~0%	Swing - Single		580	Trailer combinatic
Softwood timber, kiln-dried, sawn, ?	0.11	m2	x 0.0	mm	Swing - Single		560	Trailer combinatic
Hot-dip galvanized steel sheets, re ?	16.27	m2	x 0.0	mm 50kg - ~0%	Swing - Single		580	Trailer combinatic
Softwood timber, kiln-dried, sawn, ?	2.37	m2	x 0.0	mm	Swing - Single		560	Trailer combinatic
Hot-dip galvanized steel sheets, re ?	10.33	m2	x 0.0	mm 32kg - ~0%	Swing - Single		580	Trailer combinatic
Softwood timber, kiln-dried, sawn, ?	1.48	m2	x 0.0	mm	Swing - Single		560	Trailer combinatic
Hot-dip galvanized steel plate with ?	0.07	m2		0.55kg - ~0%	Curtain Wall Single Glass		580	Trailer combinatic
Aluminium sheet, generic, 10% recyc ?	0.33	m2	x 0.0	mm	Swing - WC Partition		580	Trailer combinatic

Finishes and coverings [↔ Compare answers](#) [+ Create a group](#) [+ Move materials](#)

[+ Click to input data](#)

5. External areas and site elements 0.72 Tonnes CO₂e

Materials and constructions for external areas [↔ Compare answers](#) [+ Create a group](#) [+ Move materials](#)

Start typing or click the arro

Resource	Quantity		CO ₂ e	Comment	Classification	Transport, kilometers		Transp
Steel, stainless, 304 (NREL) ?	0.02	m3	0.72t - ~0%	Bike Rack_Flat Plate		580	Trailer combination, 40	

6. Building technology - out of scope - [Add to scope](#)