

# Embodied Carbon Calculator: Basic Report

(CIBSE TM65 Digital Tool)



If Section A of the 'Input' tab is correctly completed, the results will be shown here.

Please complete all purple and yellow cells.

If you would like to assist CIBSE in building knowledge on the embodied carbon of products used in building services, please complete as directed, name this file as instructed in the 'Introduction and Instructions' tab, and email this file to [embodiedcarbon@cibse.org](mailto:embodiedcarbon@cibse.org).

## Basic report for 100-439 as manufactured by Excel

| Basic calculation                          |                   | Notes/source    |
|--|-------------------|-----------------|
| Date of assessment                         | 20/03/24          | Form "dd/mm/yy" |
| Name of assessor and assessor organisation | Self Assessment   |                 |
| Contact email address of assessor          | sales@mayflex.com |                 |

| Product information  |                                       |                          |
|--|---------------------------------------|--------------------------|
| Type of product  | Cables                                |                          |
| Capacity of equipment/size (kW; m <sup>3</sup> ; litre; etc.)      | 3 m                                   |                          |
| Product weight (kg)  | 0.11 kg                               |                          |
| Material % breakdown for at least 95% of the product weight? (Y/N) | Y                                     |                          |
| Product service life (years)                                       | 25 Years                              |                          |
| If refrigerant based, type of refrigerant used and GWP             | No refrigerant, 0 kgCO <sub>2</sub> e |                          |
| Refrigerant charge (kg)  | 0.00 kg                               |                          |
| Product complexity category  | Category 1                            | See CIBSE TM65 Table 4.3 |

| Embodied carbon results (kg CO <sub>2</sub> e) – without refrigerant leakage                            |                           |  |
|---|---------------------------|--|
| A1: Material extraction (original product)  | 0.365 kgCO <sub>2</sub> e |  |
| A1: Material extraction (components that are replaced in B3)  | 0.036 kgCO <sub>2</sub> e |  |
| A1-A4, B3, C2-C4: Total embodied carbon with scale-up and buffer factor (excluding refrigerant leakage) | 0.678 kgCO <sub>2</sub> e |  |

| Embodied carbon result (kg CO <sub>2</sub> e) – refrigerant leakage only      |                           |                     |
|---|---------------------------|---------------------|
| B1 (refrigerant leakage during use) + C1 (refrigerant leakage at end of life) | 0.000 kgCO <sub>2</sub> e | TM65 leakage Type 0 |

| Embodied carbon result with 'basic' calculation method (kg CO <sub>2</sub> e) – total |                           |  |
|---|---------------------------|--|
| Result of 'basic' calculation method  | 0.678 kgCO <sub>2</sub> e |  |

| Assumptions                                   |                              |  |
|---|------------------------------|--|
| A1: Material carbon coefficient source        | CIBSE TM65, Table 2.1        | E.g: Source = CIBSE TM65, Table 2.1        |
| B1: Refrigerant annual leakage rate (%)       | CIBSE TM65, Table 4.4 Type 0 | E.g: Source = CIBSE TM65, Table 4.4 type 2 |
| C1: Refrigerant end of life recovery rate (%) | CIBSE TM65, Table 4.4 Type 0 | E.g: Source = CIBSE TM65, Table 4.4 type 2 |
| B3: Materials replaced as part of repair (%)  | CIBSE TM65, Table 2.1        | E.g: Source = CIBSE TM65, Table 2.1        |

| Details                             |  |
|-------------------------------------|--|
| Please provide any relevant details |  |

| Information disclosure   | Select Yes if you agree | Notes |
|--|-------------------------|-------|
| I consent to CIBSE's use of the data contained in this form for research purposes, on the condition that all identifying information is removed from any published output. | Yes                     |       |
| I consent to CIBSE's use of the data contained in this form in order to establish an embodied carbon database for products used in building services.                      | Yes                     |       |