

# Environmental Product Declaration



In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

## Ultipro Vapour Barrier 0.2 mm

from

**Saint-Gobain Building Distribution (SGDS)**



|                          |   |
|--------------------------|---|
| Program:                 | The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a> |
| Program operator:        | EPD International AB  |
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*An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)*



## General information

### Program information

|                 |   |
|-----------------|---|
| <b>Program:</b> | The International EPD® System                                       |
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| <b>Website:</b> | <a href="http://www.environdec.com">www.environdec.com</a>          |
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CEN standard EN 15804:2012 +A2 (2019) serves as the Core Product Category Rules (PCR)

Product category rules (PCR): PCR 2021:01 v 1.0.2 multi-purpose films

PCR review was conducted by: *The Technical Committee of the International EPD® System. Chair: Claudia A. Peña. Contact via [info@environdec.com](mailto:info@environdec.com)*

Independent third-party verification of the declaration and data, according to ISO 14025:2006:

EPD process certification  EPD verification

Third-party verifier: *Vladimir Koci, [vladimir.koci@lcastudio.cz](mailto:vladimir.koci@lcastudio.cz)*



The procedure for follow-up of data during EPD validity involves third party verifier:

Yes  No

The EPD owner has sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. EPDs made according to EN15804+A1, and EN15804+A2 are not comparable, especially since a majority of the environmental indicators are based on different versions. For further information about comparability, see EN 15804 and ISO 14025.

## Company information

|  |  |
|--|--|
| <b>Owner of the EPD</b>                | Saint-Gobain Distribution Sweden   |
| <b>Contact</b>                         | SGDS- Beriar Maroof ( <a href="mailto:beriar.maroof@sgdsgruppen.se">beriar.maroof@sgdsgruppen.se</a> )<br>Optimera - Henrik Björk ( <a href="mailto:henrik.bjork@optimera.se">henrik.bjork@optimera.se</a> )   |
| <b>Description of the organisation</b> | <p>SGDS Gruppen - specialists in collaboration for more efficient business in construction and installation. SGDS Gruppen AB is the head company of some of Sweden's leading trading companies in construction, sheet metal, tiles and installation. All the companies have a long and solid industry experience and provide most of Sweden's craftsmen with materials for various projects. Customers in different companies can also buy support items from the sister companies in the group. In selected cases, we take joint projects to facilitate the logistics of the supply of goods, which is then often critical for a smooth construction project.</p> <ul style="list-style-type: none"> <li>• Optimera - construction trade for professional carpenters</li> <li>• Dahl – heat, plumbing and sanitary specialist</li> <li>• Bevego - building sheet metal, ventilation and technical insulation</li> <li>• Kakelspecialisten and Konradsson's Tiles - tiles, tiling and bathroom fittings</li> </ul> <p>The company focuses on sales and services, with direct contact with about 150,000 customers regularly.</p> <p>Saint-Gobain Distribution Sweden group (SGDS) is owned by Saint-Gobain with a presence in 64 countries and over 190 000 employees worldwide.</p> |
| <b>Location of production site</b>     | Multiple manufacturers in Sweden   |

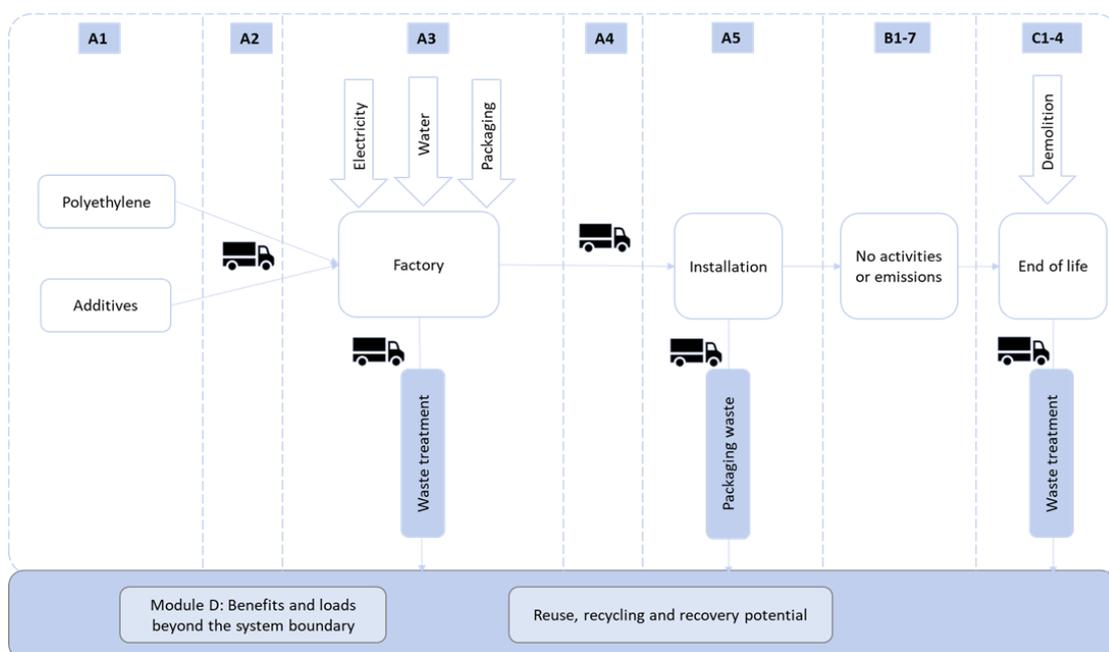


## Product information

|                               |  |
|-------------------------------|--|
| <b>Product name</b>           | Ultipro vapour barrier 0.2 mm  |
| <b>Product identification</b> | 0.2 mm thick film made from >99% polyethylene and <1% additives  |
| <b>Product description</b>    | Age-resistant building foil intended for use as an air and vapour barrier in external walls, ceilings and floors.  |
| <b>UN CPC code</b>            | 3633 semi manufactures of plastics; plates, sheets, film, foil and strip of plastics, not self-adhesive, non-cellular and not reinforced, laminated, supported or similarly combined with other materials  |
| <b>Use</b>                    | The building foil prevents moisture from the inside of the building from penetrating into the wall, floor, or roof construction. It also has an airtight function. The building foil is made of polyethylene and is stabilized to withstand exposure to UV light, as well as heat and alkali. The product is certified according to the P marking rule for flexible barrier layers in buildings SP CR128. Installation instructions for ULTIPRO building foil can be found on the outer packaging. For more detailed descriptions regarding assembly, refer to Hus-AMA. ULTIPRO building foil is mounted on the warm side of the insulation to prevent moist air from migrating out into the cold construction and condensing there. |

## LCA information

|  |   |
|--|---|
| <b>Functional unit</b>                   | 1 m <sup>2</sup> film   |
| <b>Reference service life</b>            | Not applicable  |
| <b>Database(s) and LCA software used</b> | Calculation completed in LCA for Experts (GaBi) v10.7 with an integrated Ecoinvent database 3.8 |
| <b>System boundaries</b>                 | Cradle to gate with options (A1-A3, A4,C1-C4, D).   |



The product is made by multiple manufacturers in Sweden and sold in Sweden.

The end of life reflects the Swedish market where 74% of plastic is incinerated and 26% recycled. For the credit for recovered electricity and heat (module D), Swedish electricity grid mix was used.

### Modules declared

X = modules included, ND = not declared

|                    | Product stage                     |           |               | Assembly stage |           | Use stage |             |        |             |               |                        |                       | End of life stage          |           |                  |            | Benefits & loads beyond system boundary |
|--------------------|-----------------------------------|-----------|---------------|----------------|-----------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|------------|---|
|                    | Raw materials                     | Transport | Manufacturing | Transport      | Assembly* | Use       | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal** | Reuse-Recovery-Recycling-potential      |
|                    | A1                                | A2        | A3            | A4             | A5        | B1        | B2          | B3     | B4          | B5            | B6                     | B7                    | C1                         | C2        | C3               | C4         | D                                       |
| Declared           | X                                 | X         | X             | X              | ND        | ND        | ND          | ND     | ND          | ND            | ND                     | ND                    | X                          | X         | X                | X          | X                                       |
| Geography          | EU                                | EU        | SE            | EU             |           |           |             |        |             |               |                        |                       | SE                         | EU        | EU               | EU         | EU                                      |
| Specific data used | Factory specific data used for A3 |           |               |                |           |           |             |        |             |               |                        |                       |                            |           |                  |            |   |
| Variation-Products | <10%                              |           |               |                |           |           |             |        |             |               |                        |                       |                            |           |                  |            |   |
| Variation-Sites    | <10%                              |           |               |                |           |           |             |        |             |               |                        |                       |                            |           |                  |            |   |

\* Biogenic emissions from packaging is included in A5

\*\* The product is not assumed to be sent to landfill. Instead C4 is used to balance the biogenic carbon.

### Data

Generic database data was used for the production of raw materials, energy, transportation, packaging and end-of-life. Specific data was collected from the factories.

### Time representativeness

The site-specific data used for the product manufacturing corresponds to 2022. The age of data from generic databases varies from 2013 – 2022.

### Data quality

All datasets used came from reputable databases GaBi and Ecoinvent, with good technological representativeness and which represent either Sweden or EU28 average. Therefore, it could be considered good.

### Allocation

No co-product allocation has been applied since no co-products are generated, and therefore allocation has not been relevant.

**Cut-off criteria**

The general rules for the exclusion of inputs and outputs follow the requirements in EN 15804.

**Content declaration**

| Product components  | Weight /m <sup>2</sup>      | Post-consumer materials weight % | Biogenic materials weight % and kg C/m <sup>2</sup> |
|---------------------|-----------------------------|----------------------------------|---|
| Polyethylene        | > 99%                       | 0                                | 0   |
| Additives           | < 1%                        | 0                                | 0   |
| Total               | 0.18 kg                     | 0                                | 0   |
| Packaging materials | Weight (kg/m <sup>2</sup> ) | Weight-% (versus the product)    | Weight biogenic carbon, kg C/m <sup>2</sup>         |
| Cardboard           | 7.4E-03                     | 4 %                              | 3.3E-03   |
| PE                  | 5.5E-04                     | 0 %                              | 0   |
| Pallet              | 7.4E-03                     | 4 %                              | 3.1E-03   |
| Total               | 1.5E-02                     | 8 %                              | 6.3E-03   |

**Information on the biogenic carbon content**

| Biogenic carbon content                | Unit per FU | Amount   |
|--|-------------|----------|
| Biogenic carbon content in the product | kg C        | 0        |
| Biogenic carbon content in packaging   | kg C        | 6.32E-03 |

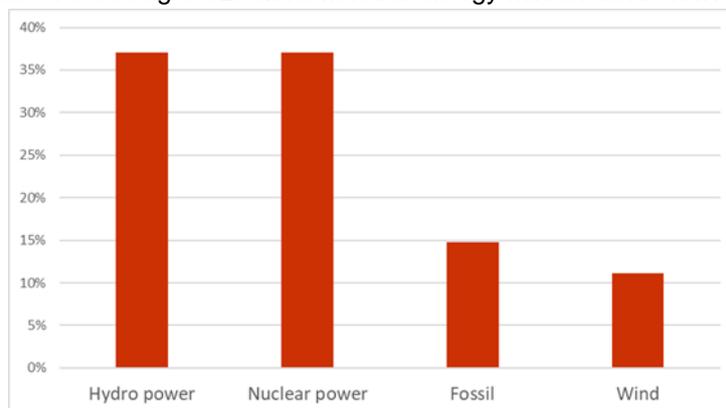
1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

**Information on energy content**

| Energy content                | Unit per FU | Amount |
|-------------------------------|-------------|--------|
| Energy content in the product | MJ          | 8.85   |

**Manufacturing electricity grid mix**

The manufacturers used different electricity mixes. For confidentiality not every grid mix used is shown. A commonly used Swedish electricity supplier is Vattenfall. It was modelled to have a total climate change impact of 0.084 kg CO<sub>2</sub>e/kWh with the energy mix shown below.



## Disclaimers

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

Using the results of modules A1-A3 without considering the results of module C is discouraged.

| ILCD classification  | Indicator   | Disclaimer |
|--|---|------------|
| ILCD Type 1  | Global warming potential (GWP)  | None       |
|  | Depletion potential of the stratospheric ozone layer (ODP)  | None       |
|  | Potential incidence of disease due to PM emissions (PM)   | None       |
| ILCD Type 2  | Acidification potential, Accumulated Exceedance (AP)  | None       |
|  | Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater) | None       |
|  | Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)         | None       |
|  | Eutrophication potential, Accumulated Exceedance (EP-terrestrial)                                   | None       |
|  | Formation potential of tropospheric ozone (POCP)  | None       |
|  | Potential Human exposure efficiency relative to U235 (IRP)  | 1          |
|  |   |            |
| ILCD Type 3  | Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)                          | 2          |
|  | Abiotic depletion potential for fossil resources (ADP-fossil)                                       | 2          |
|  | Water (user) deprivation potential, deprivation-weighted water consumption (WDP)                    | 2          |
|  | Potential Comparative Toxic Unit for ecosystems (ETP-fw)  | 2          |
|  | Potential Comparative Toxic Unit for humans (HTP-c)   | 2          |
|  | Potential Comparative Toxic Unit for humans (HTP-nc)  | 2          |
|  | Potential Soil quality index (SQP)  | 2          |
| Disclaimer 1 – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator. |   |            |
| Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.  |   |            |

## Environmental Information

### Potential environmental impact – indicators according to EN 15804+A2

| Results per functional unit: 1 m <sup>2</sup> |   |           |           |          |           |           |          |          |           |
|---|---|-----------|-----------|----------|-----------|-----------|----------|----------|-----------|
| Indicator                                     | Unit  | A1-A3     | A4        | A5       | C1        | C2        | C3       | C4       | D         |
| GWP-total                                     | kg CO2 eq   | 3.62E-01  | 6.83E-03  | 7.63E-03 | 5.74E-05  | 6.73E-04  | 1.74E-01 | 6.06E-03 | -8.27E-02 |
| GWP-fossil                                    | kg CO2 eq   | 3.76E-01  | 6.87E-03  | 0        | 5.77E-05  | 6.76E-04  | 1.74E-01 | 0        | -8.25E-02 |
| GWP-biogenic                                  | kg CO2 eq   | -1.36E-02 | -1.01E-04 | 7.63E-03 | -7.83E-07 | -9.99E-06 | 5.96E-06 | 6.06E-03 | -2.05E-04 |
| GWP-luluc                                     | kg CO2 eq   | 1.25E-04  | 6.34E-05  | 0        | 5.24E-07  | 6.25E-06  | 2.89E-06 | 0        | -5.08E-06 |
| ODP   | kg CFC-11 eq  | 2.73E-10  | 6.04E-16  | 0        | 7.36E-18  | 6.12E-17  | 3.41E-14 | 0        | -2.05E-13 |
| AP  | mole H+ eq  | 8.63E-04  | 1.30E-05  | 0        | 2.95E-07  | 1.28E-06  | 2.17E-05 | 0        | -1.10E-04 |
| EP-freshwater                                 | kg P eq   | 1.81E-06  | 2.49E-08  | 0        | 2.08E-10  | 2.47E-09  | 9.13E-09 | 0        | -1.40E-07 |
| EP-marine                                     | kg N eq   | 2.38E-04  | 5.36E-06  | 0        | 1.39E-07  | 5.28E-07  | 5.88E-06 | 0        | -3.25E-05 |
| EP-terrestrial                                | mole N eq   | 2.55E-03  | 6.12E-05  | 0        | 1.54E-06  | 6.03E-06  | 9.95E-05 | 0        | -3.41E-04 |
| POCP  | kg NMVOC eq   | 9.20E-04  | 1.15E-05  | 0        | 3.88E-07  | 1.14E-06  | 1.69E-05 | 0        | -1.16E-04 |
| ADP-minerals & metals                         | kg Sb eq  | 3.95E-08  | 4.45E-10  | 0        | 3.75E-12  | 4.39E-11  | 3.02E-10 | 0        | -4.35E-09 |
| ADP-fossil                                    | MJ  | 1.48E+01  | 9.32E-02  | 0        | 7.71E-04  | 9.19E-03  | 7.77E-02 | 0        | -2.69E+00 |
| WDP   | m3  | 7.88E-02  | 7.92E-05  | 0        | 6.84E-07  | 7.87E-06  | 1.65E-02 | 0        | -1.18E-02 |
| Acronyms                                      | GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption |           |           |          |           |           |          |          |           |

## Use of resources

| Results per functional unit: 1 m <sup>2</sup> |  |          |          |    |          |          |          |    |           |
|---|--|----------|----------|----|----------|----------|----------|----|-----------|
| Indicator                                     | Unit   | A1-A3    | A4       | A5 | C1       | C2       | C3       | C4 | D         |
| PERE  | MJ   | 1.26E+00 | 6.62E-03 | 0  | 5.61E-05 | 6.61E-04 | 1.87E-02 | 0  | -4.58E-01 |
| PERM  | MJ   | 1.67E-01 | 0        | 0  | 0        | 0        | 0        | 0  | 0         |
| PERT  | MJ   | 1.43E+00 | 6.62E-03 | 0  | 5.61E-05 | 6.61E-04 | 1.87E-02 | 0  | -4.58E-01 |
| PENRE   | MJ   | 5.97E+00 | 9.35E-02 | 0  | 7.74E-04 | 9.22E-03 | 7.78E-02 | 0  | -1.67E+00 |
| PENRM   | MJ   | 8.85E+00 | 0.00E+00 | 0  | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0  | -1.02E+00 |
| PENRT   | MJ   | 1.48E+01 | 9.35E-02 | 0  | 7.74E-04 | 9.22E-03 | 7.78E-02 | 0  | -2.69E+00 |
| SM  | kg   | 0        | 0        | 0  | 0        | 0        | 0        | 0  | 0         |
| RSF   | MJ   | 0        | 0        | 0  | 0        | 0        | 0        | 0  | 0         |
| NRSF  | MJ   | 0        | 0        | 0  | 0        | 0        | 0        | 0  | 0         |
| FW  | m <sup>3</sup>   | 3.03E-03 | 7.30E-06 | 0  | 6.14E-08 | 7.32E-07 | 3.94E-04 | 0  | -7.66E-04 |
| Acronyms                                      | PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water |          |          |    |          |          |          |    |           |

## Additional voluntary indicators

| Results per functional unit: 1 m <sup>2</sup> |  |          |          |          |          |          |          |    |           |
|---|--|----------|----------|----------|----------|----------|----------|----|-----------|
| Indicator                                     | Unit   | A1-A3    | A4       | A5       | C1       | C2       | C3       | C4 | D         |
| GWP-GHG                                       | kg CO <sub>2</sub> eq                                | 3.55E-01 | 6.74E-03 | 7.63E-03 | 5.66E-05 | 6.63E-04 | 1.74E-01 | 0  | -8.17E-02 |
| Acronyms                                      | GWP-GHG global warming potential - greenhouse gases; |          |          |          |          |          |          |    |           |

These indicators support comparability with EPDs based on the previous version of EN 15804 (EN 15804:2012+A1:2013).

## Waste and output flows

### Waste

| Results per functional unit: 1 m <sup>2</sup> |  |          |          |    |          |          |          |    |           |
|---|--|----------|----------|----|----------|----------|----------|----|-----------|
| Indicator                                     | Unit   | A1-A3    | A4       | A5 | C1       | C2       | C3       | C4 | D         |
| HWD   | kg   | 1.73E-09 | 3.41E-13 | 0  | 2.39E-15 | 3.18E-14 | 6.18E-13 | 0  | -3.61E-11 |
| NHWD  | kg   | 4.01E-03 | 1.35E-05 | 0  | 1.18E-07 | 1.34E-06 | 1.58E-02 | 0  | -1.02E-03 |
| RWD   | kg   | 2.85E-04 | 1.29E-07 | 0  | 1.45E-09 | 1.60E-08 | 2.79E-06 | 0  | -1.62E-04 |
| Acronyms                                      | HW Hazardous waste disposed; NHW Non-hazardous waste disposed; RW Radioactive waste disposed |          |          |    |          |          |          |    |           |

### Output flows

| Results per functional unit: 1 m <sup>2</sup> |   |          |    |    |    |    |          |    |   |
|---|---|----------|----|----|----|----|----------|----|---|
| Indicator                                     | Unit  | A1-A3    | A4 | A5 | C1 | C2 | C3       | C4 | D |
| CRU   | kg  | 0        | 0  | 0  | 0  | 0  | 0        | 0  | 0 |
| MFR   | kg  | 5.79E-04 | 0  | 0  | 0  | 0  | 2.45E-02 | 0  | 0 |
| MER   | kg  | 0        | 0  | 0  | 0  | 0  | 0        | 0  | 0 |
| EEE   | MJ  | 0        | 0  | 0  | 0  | 0  | 3.16E-01 | 0  | 0 |
| EET   | MJ  | 0        | 0  | 0  | 0  | 0  | 5.66E-01 | 0  | 0 |
| Acronyms                                      | CRU Components for reuse; MFR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy |          |    |    |    |    |          |    |   |

## References

- EN 15804:2012+A2 Sustainability of construction works – Environmental product declaration – Core rules for the product category of constructions products
- EPD International (2021) General Programme Instructions of the International EPD® System, version 4.0
- Google Maps <https://www.google.co.uk/maps> accessed 2023-08-09
- ISO 14025:2006 International Standard ISO 14025 – Environmental labels and declarations — Type III environmental declarations — Principles and procedures
- ISO 14040:2006 International Standard ISO 14040: Environmental Management – Life cycle assessment – Principles and framework. Second edition 2006-07-01.
- ISO 14044:2006 International Standard ISO 14044: Environmental Management – Life cycle assessment – Requirements and Guidelines.
- PCR 2019:14 Construction products (EN 15804:A2) v1.3.1
- PCR 2021:01 Multi-purpose films v1.0.2
- Swedish Statistics [https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START\\_MI\\_MI0305/MI0305T003/table/tableViewLayout1/](https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START_MI_MI0305/MI0305T003/table/tableViewLayout1/) Accessed 2023-08-23
- Vattenfall (2023) Annual Sustainability Report 2022 [https://group.vattenfall.com/se/siteassets/sverige/om-oss/finans/arsrapporter/2022/ars-och-hallbarhetsredovisning\\_2022.pdf](https://group.vattenfall.com/se/siteassets/sverige/om-oss/finans/arsrapporter/2022/ars-och-hallbarhetsredovisning_2022.pdf)

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