

# Product Environmental Profile

**Valena™ Life**  
**German Standard 2 P+E Socket Outlet**  
**Screw terminals with Shutters - Ivory**



## LEGRAND'S ENVIRONMENTAL COMMITMENTS

• **Incorporate environmental management into our industrial sites**

Of all Legrand sites worldwide, over 80% are ISO 14001-certified (sites belonging to the Group for more than five years).

• **Involve the environment in product design**

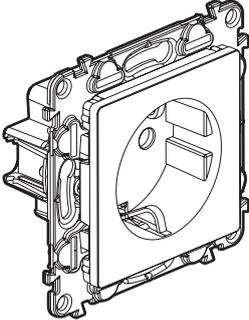
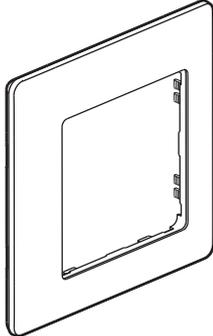
Provide our customers with all relevant information (composition, consumption, end of life, etc.).  
Reduce the environmental impact of products over their whole life cycle.

• **Offer our customers environmentally friendly solutions**

Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations



## REFERENCE PRODUCT

|  |   |  |
|--|---|--|
| <b>Function</b>  | Allow the connection to a 250 V low voltage circuit, according to standards IEC 60884-1 with a non-continuous operation (30% of time) during 20 years (household or similar purposes) at 30% of rated load, with rated load not exceeding 16 A. |  |
| <b>Reference Product</b>   |   |  |
|  | Cat. No 7 535 24  | Cat. No 7 540 41   |
| 2 P+E German standard socket outlet with shutters, screw terminals - Ivory - 16 A, IP 20, 250 V~ |   |  |

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company.



## PRODUCTS CONCERNED

The environmental data are representative of the following products:

| Catalogue Numbers (mechanisms with cover)  | Catalogue Number (mechanism only)  | Catalogue Numbers (plates)   | Catalogue Numbers (covers)   |
|--|--|--|--|
| <ul style="list-style-type: none"> <li>• 7 531 24</li> <li>• 7 532 24</li> <li>• 7 533 24</li> <li>• 7 535 24</li> <li>• 7 536 24</li> <li>• 7 537 24</li> <li>• 7 538 24</li> <li>• 7 539 24</li> </ul> | <ul style="list-style-type: none"> <li>• 7 530 24</li> <li>• 7 530 29</li> </ul> | <ul style="list-style-type: none"> <li>• 7 540 01</li> <li>• 7 540 07</li> <li>• 7 540 41</li> <li>• 7 540 47</li> <li>• 7 541 31</li> <li>• 7 541 37</li> <li>• 7 543 01</li> <li>• 7 543 11</li> <li>• 7 543 91</li> </ul> | <ul style="list-style-type: none"> <li>• 7 553 00</li> <li>• 7 553 01</li> <li>• 7 553 02</li> <li>• 7 553 05</li> <li>• 7 553 06</li> <li>• 7 553 07</li> </ul> |

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## ■ CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It does not contain substances covered by the RoHS Directive (2002/95/EC and its revision 2011/65/EC). It contains none of the 138 substance in the candidate list of the REACH regulation dated 19/12/2012

| <b>Total weight of Reference Product</b> |               | <b>103 g (with unit packaging)</b> |               |                                 |               |
|--|---------------|------------------------------------|---------------|---------------------------------|---------------|
| Plastics as % of weight                  |               | Metals as % of weight              |               | Packaging as % of weight        |               |
| PC                                       | <b>34.6 %</b> | Steel                              | <b>34.8 %</b> | Paper                           | <b>10.5 %</b> |
| ABS                                      | <b>9.4 %</b>  | Copper alloys                      | <b>8.0 %</b>  |                                 |               |
| PET                                      | <b>2.3 %</b>  |                                    |               |                                 |               |
| PA                                       | <b>0.4 %</b>  |                                    |               |                                 |               |
|  |               |                                    |               |                                 |               |
|  |               |                                    |               |                                 |               |
|  |               |                                    |               |                                 |               |
| <b>Total plastics</b>                    | <b>46.7 %</b> | <b>Total metals</b>                | <b>42.8 %</b> | <b>Total others (packaging)</b> | <b>10.5 %</b> |

Estimated recycled material content: 23 % of weight.



## ■ MANUFACTURE

This Reference Product comes from a site that have received ISO14001 certification.



## ■ DISTRIBUTION

Products are distributed from logistics centres located with a view to optimize transport efficiency. The Reference Product is therefore transported over an average distance of 1405 km, by road from our warehouse to the local point of distribution into the market in Europe.

Packaging is compliant with european directive 2004/12/EC concerning packaging and packaging waste. At the packaging end of life, its recyclability rate is of 100 % (in % of packaging weight).



## ■ INSTALLATION

Installation components not delivered with the product are not taken into account.



## ■ USE

### Servicing and maintenance:

Under normal conditions of use, this type of product requires no servicing or maintenance.

### Consumable:

No consumables are necessary to use this type of product.

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## END OF LIFE

Development teams integrate product end-of-life factors in the design phase. Dismantling and sorting of components or materials is made as easy as possible with a view to recycling or failing that, another form of reuse.

The sale of this product is subject to a contribution to eco-organisations in each country responsible for managing end-of-life products in the field of application of the European Waste Electronic and Electrical Equipment Directive.

### • Recyclability rate:

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 97 %. This value is based on data collected from a technological channel operating on an industrial basis. It does not prejudice the effective use of the channel for electrical and electronic products at the end of their life.

Separated into:

- plastic materials (excluding packaging): 44 %
- metal materials (excluding packaging): 43 %
- packaging (all types of materials): 10 %



## ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end-of-life. It is representative from products marketed and used in Europe.

The following modelling elements were taken into account:

|                      |   |
|----------------------|---|
| <b>Manufacture</b>   | Unit packaging taken into account. As required by the «PEP ecopassport» programme all transport for the manufacturing of the Reference Product, including materials and components, has been taken in account   |
| <b>Distribution</b>  | Transport between the last Group distribution centre and an average delivery to the sales area.   |
| <b>Installation</b>  | Installation components not delivered with the product are not taken into account.  |
| <b>Use</b>           | <ul style="list-style-type: none"> <li>• Under normal conditions of use, this type of product requires no servicing or maintenance.</li> <li>• No consumables are necessary to use this type of product</li> <li>• Product category: passive product.</li> <li>• Use scenario: non-continuous operation for 20 years at 30% of rated load, during 30% of the time. This modelling duration does not constitute a minimum durability requirement.</li> <li>• Electricity Europe - 2002.</li> </ul> |
| <b>End of life</b>   | In view of the data available on the date of creation of the document, and in accordance with the requirements of the PCR of the «PEP ecopassport» programme, transport of the Reference Product by road only once, over a distance of 1000 km, to a processing site at end of life was counted.  |
| <b>Software used</b> | EIME V5 and its database «Legrand-2012-10-31 version 3» made from the data base «CODDE-2012-07».  |

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## ENVIRONMENTAL IMPACTS (continued)

|                             | Total for Life cycle         |          | Raw material and manufacture        |          | Distribution |          | Installation |          | Use   |          | End of life |          |      |
|-----------------------------|------------------------------|----------|-------------------------------------|----------|--------------|----------|--------------|----------|-------|----------|-------------|----------|------|
|                             | Value                        | Unit     | Value                               | %        | Value        | %        | Value        | %        | Value | %        | Value       | %        |      |
| <b>Mandatory indicators</b> | Global warming               | 1.75E+03 | g~CO <sub>2</sub> eq.               | 5.89E+02 | 34%          | 1.08E+01 | < 1%         | 0.00E+00 | 0%    | 1.15E+03 | 65%         | 7.65E+00 | < 1% |
|                             | Ozone depletion              | 4.23E-04 | g~CFC-11 eq.                        | 1.49E-04 | 35%          | 7.62E-06 | 2%           | 0.00E+00 | 0%    | 2.61E-04 | 62%         | 5.43E-06 | 1%   |
|                             | Water eutrophication         | 7.53E-02 | g~PO <sub>4</sub> <sup>3-</sup> eq. | 6.41E-02 | 85%          | 1.79E-04 | < 1%         | 0.00E+00 | 0%    | 1.09E-02 | 14%         | 1.28E-04 | < 1% |
|                             | Photochemical ozone creation | 3.27E-01 | g~C <sub>2</sub> H <sub>4</sub> eq. | 2.40E-01 | 73%          | 9.35E-03 | 3%           | 0.00E+00 | 0%    | 7.09E-02 | 22%         | 6.65E-03 | 2%   |
|                             | Air acidification            | 3.38E-01 | g~H+ eq.                            | 8.76E-02 | 26%          | 1.42E-03 | < 1%         | 0.00E+00 | 0%    | 2.48E-01 | 73%         | 1.01E-03 | < 1% |
|                             | Total energy depletion       | 3.27E+01 | MJ                                  | 9.28E+00 | 28%          | 1.36E-01 | < 1%         | 0.00E+00 | 0%    | 2.32E+01 | 71%         | 9.70E-02 | < 1% |
|                             | Water depletion              | 7.07E+00 | dm <sup>3</sup>                     | 4.05E+00 | 57%          | 1.29E-02 | < 1%         | 0.00E+00 | 0%    | 2.99E+00 | 42%         | 9.20E-03 | < 1% |

|                            |                            |          |                    |          |     |          |      |          |    |          |     |          |      |
|----------------------------|----------------------------|----------|--------------------|----------|-----|----------|------|----------|----|----------|-----|----------|------|
| <b>Optional indicators</b> | Raw material depletion     | 5.21E-16 | year <sup>-1</sup> | 5.05E-16 | 97% | 1.86E-19 | < 1% | 0.00E+00 | 0% | 1.55E-17 | 3%  | 1.32E-19 | < 1% |
|                            | Air toxicity               | 4.62E+05 | m <sup>3</sup>     | 1.72E+05 | 37% | 2.11E+03 | < 1% | 0.00E+00 | 0% | 2.87E+05 | 62% | 1.50E+03 | < 1% |
|                            | Water toxicity             | 7.94E-01 | m <sup>3</sup>     | 2.81E-01 | 35% | 1.50E-03 | < 1% | 0.00E+00 | 0% | 5.11E-01 | 64% | 1.07E-03 | < 1% |
|                            | Hazardous waste production | 9.02E-03 | kg                 | 8.81E-03 | 98% | 4.01E-06 | < 1% | 0.00E+00 | 0% | 1.97E-04 | 2%  | 2.85E-06 | < 1% |

The environmental impacts of the Reference Product are representative of the products covered by the PEP, which therefore constitute a homogeneous environmental family.

The values of these impacts are valid for the context specified in this document. They must not be used directly to draw up the environmental balance sheet for the installation.

|  |   |
|--|---|
| Registration number: LGRP-2015-345-V1-EN   | Drafting rule → PCR: PEP-PCR-ed 2.1-FR-2012 12 11<br>→ PSR: PSR-0005-ed1-FR-2012 12 11      |
| Authorisation number of checker: VH23  | Programme information: <a href="http://www.pep-ecopassport.org">www.pep-ecopassport.org</a> |
| Date of issue: 12-2015   | Validity period: 4 years  |
| Independent verification of the declaration and data, in accordance with ISO 14025: 2006<br>Internal <input checked="" type="checkbox"/> External <input type="checkbox"/> |   |
| In accordance with ISO 14025: 2006 Type III environmental declaration  |   |
| The critical review of the PCR was conducted by a panel of experts chaired by J. Chevalier (CSTB)  |   |
| The elements of the present PEP cannot be compared with elements from another programme  |   |

