



THE COMMITMENT TO THE ENVIRONMENT AND SUSTAINABILITY OF URMET S.P.A

One of Urmet S.p.A's strategic choices is to protect and respect the environment by optimising consumption, reducing waste in the production phases and using ecological and recyclable materials that allow waste to be recovered and reduced, promoting the development of a circular economy to be applied also outside the company. Urmet offers its customers innovative solutions to enable the design of installations that consume less energy and are more environmentally friendly.

Urmet considers the environmental impact in product design and provides information compliant with standard ISO 14025. The goal is to reduce the environmental impact of products throughout their life cycle and provide our customers with all the information relevant to the product (composition, consumption, end of life, etc.).



DESCRIPTION OF THE PRODUCTS

The main function of VOG⁵ video door phones is to allow audio and video communication between the inside and outside of a building or home, operating 24 hours a day for a period of 10 years. In addition, they allow you to see who called the external call station without immediately starting a conversation (self-insertion function). The devices allow the pedestrian door and, if necessary, the driveway to be opened. You can also turn on special decoding to perform various additional functions, such as turning on staircase lights. The video door phone is compatible with all hearing aids equipped with a T selector.

The functional unit used in the study is: to ensure audio and video communication between the interior and exterior of a building for a service life of 10 years according to the specified usage scenario.. The useful life of the video intercom is not defined by standards or company documents. For consistency with other published PEPs for similar products, we have chosen to define an RSL of 10 years, even though the actual useful life of the product may be longer.

Ref. 1760/6



PRODUCTS CONCERNED

The environmental data are representative of the following product codes:

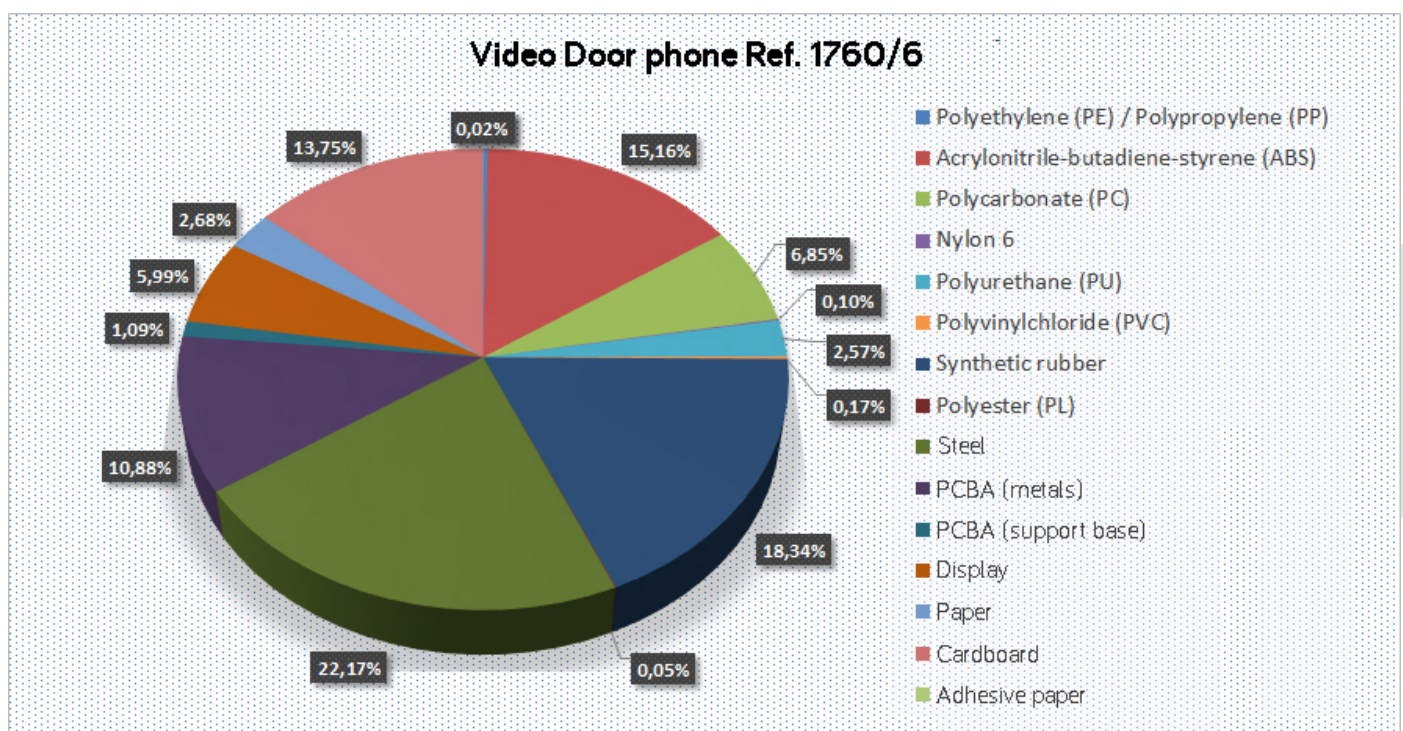
- Ref. 1760/6 White video door phone 2Voice system (representative product)
- Ref. 1760/5 Black video door phone 2Voice system

MATERIAL AND COMPOSITION OF THE PRODUCT

VOC⁵ video door phones comply with the regulations in force at the time of their introduction on the market, respecting the restrictions on the use of hazardous substances established by the RoHS Directive 2011/65/EU and its Delegated Directive 2015/863/EU.

Total weight of the video door phone Ref. 1760/6	817,7 g (including packaging)
---	--------------------------------------

Plastic in % of weight		Metal in % of weight		Electrical components in % of weight		Packaging in % of mass	
Synthetic rubber	18,3%	Steel	22,1%	PCBA (metals)	10,8%	Cardboard	13,7%
Acrylonitrile-butadiene-styrene (ABS)	15,1%			LCD display	6,0%	Paper	2,7%
Polycarbonate (PC)	6,9%			PCBA (support base)	1,1%	Adhesive paper	< 0,1%
Polyurethane (PU)	2,5%						
Polyethylene (PE) / Polypropylene (PP)	0,2%						
Nylon 6	0,2%						
Polyvinylchloride (PVC)	0,2%						
Polyester (PL)	< 0,1%						
Total Plastic	43,5%	Total Metals	22,1%	Total Electronic components	17,9%	Total Packaging	16,5%





GEOGRAPHICAL, TECHNOLOGICAL AND TEMPORAL SCOPE

Reference year of the study

The reference year of the study is 2023.

Geographical scope (global).

Geographical scope is global as the production chain is based in China and Italy and the product is distributed worldwide. Data on environmental information on how the product is made was collected directly at the production site in China. When specific data was not available, generic data was used. For the selection of generic data relating to production activities in China, an order of priority was followed, favouring first local, then national and finally Asian data. For example, the average mix of the Chinese electricity grid, identified as “**Electricity, low voltage {CN}| market group for electricity, low voltage | Cut-off, U**”.

The product is mainly intended for the Italian market, but is distributed in several countries around the world. In this context, a priority order was followed based on the quantities sold in the various countries. The ‘Mix energy Urmet 1760/6’ was created from scratch, as the video door phone is marketed in different regions of the world. Therefore, all the various energy consumptions of the countries in which the product is distributed were considered within the dataset.

Technological Representation

In the production phase, specific data was collected to calculate the environmental impact caused by the production process. However, for the production of raw materials and sub-components, datasets from Ecoinvent 3.10 were used. During the selection of datasets, special attention was paid to technological representativeness. Datasets with the same production processes were preferred. If not available, datasets with similar production processes were chosen.



PRODUCTION PHASE

VOG⁵ video door phones are manufactured by the UEL production plant (**Urmet S.p.A Electronics (Huizhou) Ltd.**) of Urmet S.p.A Group located in China. The products are designed with the aim of facilitating the reuse, disassembly and recovery of WEEE (Electrical and Electronic Equipment Waste), their components and materials, in compliance with Directive 2012/19/EU. The packaging materials comply with Directive 2004/12/EC.

The dataset used to represent the electricity mix for the production phase is:

Electricity, low voltage {CN}| market group for electricity, low voltage | Cut-off, U.

The dataset used to represent the electrical mix for the testing phase is:

Electricity, low voltage {IT}| market for electricity, low voltage | Cut-off, U.



DISTRIBUTION PHASE

The products are distributed by Italia Urmet S.p.A to the various wholesalers in the markets where the sale of the product has been selected. Products are mainly transported by road for an average distance of 583 km, representative of marketing in Europe.



INSTALLATION PHASE

Installation takes place by screwing and interlocking the device. Only standard instruments are required. During the installation phase, waste related to product packaging is generated (collection and treatment until disposal). The percentage of recyclability at the end of its life is 75% (in % of the weight of the packaging).

USE PHASE

The **Use** phase involves the daily use of the video door phone by the end user, to receive calls, open the various entrances to allow access and monitor the outside of the building. Under normal conditions of use, the products do not require service, maintenance or additional products. The use phase considers what is indicated in document PCR-ed4-EN-2021 09 06.

The dataset used to represent the electrical mix for the use phase is:

Mix energy urmet 1760/6.

NOTE: 'Mix energy Urmet 1760/6' was created from scratch as the video door phone is sold in different parts of the world, which is why all the various energy consumptions of the countries where the product is marketed were taken into account in the dataset.

Country	Quantity moved	Percentage energy use
Albania	11	4,29E-05
Argentina	1	3,90E-06
Australia	4	1,56E-05
Austria	1270	4,95E-03
Belgium	1221	4,76E-03
Brazil	2	7,80E-06
Bulgaria	120	4,68E-04
Cyprus	37	1,44E-04
Ecuador	1	3,90E-06
France	100000	3,90E-01
Germany	436	1,70E-03
Greece	88	3,43E-04
Hungary	21	8,19E-05
Ireland	5	1,95E-05
Israel	201	7,84E-04
England	100	3,90E-04
Italy	148338	5,79E-01
Lebanon	1	3,90E-06
Malta	160	6,24E-04
Mexico	2	7,80E-06
Morocco	1	3,90E-06
Norway	1580	6,16E-03
Netherlands	738	2,88E-03
Poland	241	9,40E-04
Portugal	72	2,81E-04
Czech Republic	630	2,46E-03
Romania	15	5,85E-05

Singapore	4	1,56E-05
Slovenia	980	3,82E-03
Switzerland	2	7,80E-06
United Arab Emirates	7	2,73E-05
USA	25	9,75E-05

END OF SERVICE LIFE

In accordance with WEEE Directive 2012/19/EU, Urmet products are designed to be easily disassembled and recycled into all their components at the end of their life cycle, once they have become waste.

The percentage of recyclability of the product, estimated based on the **Circular Footprint Formula** present in the PCR, is **38,52%**.

ENVIRONMENTAL IMPACT

The environmental impact analysis considers all phases from "cradle to grave" according to PCR-ed4-EN-2021 09 06 and is representative of the products marketed and used mainly in Italy and, to a lesser extent, in the rest of the world in accordance with local regulations in force.

The life cycle phases analysed are as follows: **Manufacturing, Distribution, Installation, Use** and **End of Life** of the reference products.

For each phase, the following elements were analysed

Raw materials and production	The purchase from suppliers of the materials and components necessary for the realisation of the product, the transport of materials from suppliers to the production site, the production phases for the realisation of the product, packaging and transport from the production site to the Urmet headquarters in Italy.
Distribution	The transport of the product from the Urmet headquarters in Italy to the various wholesalers in the markets where the sale was selected.
Installation	The end of life of the product packaging. For the end of life of the materials, the Circular Footprint Formula present in the PCR was followed.
Use	- Product category: PCR-ed4-EN-2021 09 06. - Video door phone Ref. 1760/6 - Use scenario: 10-year service life; operating mode: - Total energy consumption over a 10-year period: 15,915 kWh These data relating to the useful life are to be considered valid only for the purpose of assessing the environmental impact and must be considered distinct from the useful life declared as a guarantee of maintaining the functionality of the products over time.
End-of-life	The transport necessary to collect the end-of-life products and transport them from the installation site to the final treatment site. The recycling and incineration process based on the type of material to be disposed of, based on the Circular Footprint Formula present in the PCR.

The analysis of the LCA model was carried out using datasets from the **Ecoinvent 3.10 database** within the **SimaPro software version 9.6**.

ENVIRONMENTAL IMPACT ASSESSMENT

Analysis of the life cycle of 1 video door phone unit Ref. 1760/6

Mandatory Indicators

Impact category	Unit	Total		Manufacturing		Distribution		Installation		Use		End of life	
Acidification	mol H+ eq	3,52E-01	100%	3,12E-01	88,8%	1,99E-02	5,7%	2,24E-05	0,0%	1,83E-02	5,2%	1,12E-03	0,3%
Climate change	kg CO2 eq	5,55E+01	100%	4,57E+01	82,3%	4,78E+00	8,6%	5,70E-02	0,1%	4,25E+00	7,7%	7,58E-01	1,4%
Climate change - Biogenic	kg CO2 eq	3,01E-01	100%	-5,53E-02	-18,3%	5,94E-04	0,2%	4,80E-02	15,9%	2,97E-01	98,6%	1,09E-02	3,6%
Climate change - Fossil	kg CO2 eq	5,52E+01	100%	4,57E+01	82,8%	4,78E+00	8,7%	9,09E-03	0,0%	3,96E+00	7,2%	7,47E-01	1,4%
Climate change - Land use and LU change	kg CO2 eq	5,74E-02	100%	5,55E-02	96,7%	3,28E-04	0,6%	3,15E-06	0,0%	1,43E-03	2,5%	1,60E-04	0,3%
Eutrophication, marine	kg N eq	7,62E-02	100%	6,42E-02	84,2%	7,98E-03	10,5%	2,85E-05	0,0%	2,90E-03	3,8%	1,10E-03	1,4%
Eutrophication, freshwater	kg P eq	5,11E-02	100%	4,98E-02	97,5%	7,42E-05	0,1%	6,82E-07	0,0%	1,10E-03	2,2%	7,91E-05	0,2%
Eutrophication, terrestrial	mol N eq	7,76E-01	100%	6,56E-01	84,6%	8,71E-02	11,2%	6,39E-05	0,0%	2,95E-02	3,8%	2,90E-03	0,4%
Ozone depletion	kg CFC11 eq	1,94E-06	100%	1,77E-06	91,0%	7,36E-08	3,8%	1,03E-10	0,0%	9,74E-08	5,0%	3,31E-09	0,2%
Photochemical ozone formation	kg NMVOC eq	2,35E-01	100%	1,94E-01	82,4%	2,81E-02	12,0%	3,43E-05	0,0%	1,20E-02	5,1%	1,10E-03	0,5%
Resource use, fossils	MJ	7,83E+02	100%	5,90E+02	75,4%	6,35E+01	8,1%	9,51E-02	0,0%	1,26E+02	16,1%	3,43E+00	0,4%
Resource use, minerals and metals	kg Sb eq	1,28E-02	100%	1,27E-02	99,4%	1,27E-06	0,0%	2,26E-08	0,0%	6,89E-05	0,5%	3,21E-06	0,0%
Water use (*)	m3 depriv.	2,22E+01	100%	1,95E+01	87,7%	9,18E-02	0,4%	-1,73E-03	0,0%	2,63E+00	11,8%	1,87E-02	0,1%

(*) The negative value for the indicator 'Water Use' at installation comes from the use of the Ecoinventi 3.10 dataset 'Waste paperboard {RoW}' treatment of waste paperboard, sanitary landfill | Cut-off, U".

Optional Indicators

Impact category	Unit	Total		Manufacturing		Distribution		Installation		Use		End of life	
Ecotoxicity, freshwater	CTUe	1,06E+03	100%	1,04E+03	97,8%	4,39E+00	0,4%	7,15E-01	0,1%	1,54E+01	1,4%	3,24E+00	0,3%
Particulate matter	disease inc.	2,75E-06	100%	2,57E-06	93,5%	5,10E-08	1,9%	5,23E-10	0,0%	1,05E-07	3,8%	2,28E-08	0,8%
Human toxicity, cancer	CTUh	1,63E-07	100%	1,45E-07	89,2%	4,80E-09	2,9%	3,96E-11	0,0%	1,15E-08	7,1%	1,27E-09	0,8%
Human toxicity, non-cancer	CTUh	1,73E-06	100%	1,61E-06	93,1%	4,83E-08	2,8%	1,95E-10	0,0%	6,55E-08	3,8%	5,18E-09	0,3%
Ionising radiation	kBq U-235 eq	8,62E+00	100%	4,98E+00	57,8%	1,92E-02	0,2%	1,46E-04	0,0%	3,61E+00	41,9%	7,67E-03	0,1%
Land use	Pt	2,37E+02	100%	2,06E+02	86,9%	4,86E+00	2,0%	6,28E-02	0,0%	2,40E+01	10,1%	2,23E+00	0,9%



BIOGENIC CARBON CONTENT

Biogenic Carbon Content is an important concept in Life Cycle Assessment (LCA). The term refers to the amount of carbon in a material or product that comes from biological sources. In our product, biogenic carbon is contained in paper and cardboard i.e. labels, booklets, packaging spacers and packaging box.

Below is the value of biogenic carbon contained in the video door phone product Ref. 1760/6

0,00535 Kg C = 0,243 Kg C biogenic C / Kg paper X 0,02201 Kg paper

The value of the biogenic carbon contained in the Ref. 1760/6

0,000014 Kg C = 0,243 Kg C biogenic C / Kg paper X 0,00006 Kg paper

0,04675 Kg C = 0,416 Kg C biogenic C / Kg cardboard X 0,1124 Kg cardboard

Total biogenic carbon packaging = **0,0468 Kg C**

The source of biogenic Kg C of paper and cardboard comes from the **Ecoinvent 3.10** database.



INVENTORY INDICATORS

Below are all inventory indicators according to ISO 14025 and the general instructions of the PEP ecopassport® programme.

Indicators	Unit	Total	Manufacturing	Distribution	Installation	Use	EoL
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw material (PENRE)	MJ	7,71E+02	5,79E+02	6,35E+01	9,51E-02	1,26E+02	3,43E+00
Use of renewable primary energy excluding renewable primary energy resources used as raw material (PERE)	MJ	9,47E+01	6,33E+01	2,35E-01	1,95E-03	3,09E+01	3,03E-01
Use of non-renewable primary energy resources used as raw material (PENRM)	MJ	1,18E+01	1,18E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable primary energy resources used as raw material (PERM)	MJ	2,27E+00	2,27E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) (PENRT)	MJ	7,83E+02	5,90E+02	6,35E+01	9,51E-02	1,26E+02	3,43E+00
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) (PERT)	MJ	9,70E+01	6,55E+01	2,35E-01	1,95E-03	3,09E+01	3,03E-01
Net use of fresh water (FW)	m3	6,74E-01	5,80E-01	3,06E-03	-3,05E-05	8,99E-02	1,15E-03
Use of secondary materials (MS)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels (RSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels (NRSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Hazardous waste disposed (HWD)	kg	3,49E-03	2,71E-03	4,39E-04	6,66E-07	3,25E-04	1,99E-05

Non-hazardous waste disposed (NHWD)	kg	2,59E+00	1,45E+00	8,57E-02	2,08E-02	3,32E-01	7,05E-01
Radioactive waste disposed (RWD)	kg	2,27E-03	1,23E-03	4,66E-06	3,64E-08	1,03E-03	1,90E-06
Materials for energy recovery (MER)	kg	1,55E-02	0,00E+00	0,00E+00	1,55E-02	0,00E+00	0,00E+00
Material for recycling (MFR)	kg	1,55E-02	0,00E+00	0,00E+00	1,55E-02	0,00E+00	0,00E+00
Components for reuse (CRU)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported thermal energy (ETE)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported electricity energy (EEE)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

(*) The negative value for the indicator 'Net Use Freshwater' at installation derives from the use of the Ecoinventi 3.10 dataset 'Waste paperboard {RoW}/ treatment of waste paperboard, sanitary landfill | Cut-off, U.

EXTRAPOLATION COEFFICIENTS

To determine the environmental impact of a product covered by the PEP (Environmental Product Profile) other than the representative product, the following rules apply:

Product code	Manufacturing	Distribution	Installation	Use	End or life
Ref. 1760/5	1,00	1,00	1,00	1,00	1,00

All extrapolation coefficients are equal to 1 as the video door phone Ref. 1760/5 video door phone differs only in colour from the representative product Ref. 1760/6.

Any enquiries should be sent to the following email address: Urmet-PEP@urmet.com

Registration number: URME-24001-V01.01-EN	Drafting rule: PCR-ed4-EN-2021 09 06
Verifier accreditation number: VH50	Information and reference documents: www.pep-ecopassport.org
Date of issue: 09-2024	Validity period: 5 years
Independent verification of the declaration and data in compliance with ISO 14025:2006 Internal ☐ External ☒	 PEP eco PASS PORT®
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)	
PEPs are compliant with XP C08-100-1:2016 and EN 50693:2019 or NF E38-500 :2022 The components of the present PEP may not be compared with components from any other program.	
Document complies with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"	