EPD
Isover EPS 150

Environmental product declaration,
In accordance with EN 15804+A2 and ISO 14025

General information

Manufacturer	Saint-Gobain Construction Products CZ a.s., Isover Division, Smrčkova 2485/4, 180 00 Prague 8, Czech Republic
Manufacturer represented	Czech Republic
About company	Isover offers the widest range of thermal, acoustic and fire insulation in the highest quality on the Czech market, on a global scale it is the most important and largest global manufacturer with operations and production plants all over the world. The complete offer of the Isover brand assortment includes products made of stone and glass wool, expanded polystyrene and accessories for system solutions for insulation of floors, partitions, walls, facades, ceilings, soffits, flat and sloping roofs or pipe distribution.
EPD Programme	The International EPD® System
Registration no	3015-EPD-030064311
Generic PCR review conducted by	EN 15804+A2 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products
Other used standards	EN 16783
Information for the Environmental Product Declaration based on	General report Isover Český Brod, 02/2023
EPD range	„From cradle to gate with option“ (details later in EPD)
Date of publication	16th June 2023
EPD validity	16th June 2028
Complier EPD	Ing. arch. Tomáš Truxa, Isover Division, Saint-Gobain Construction Products CZ a.s.
Verifier EPD	Technický a zkušební ústav stavební Praha, s.p.

Tab. 1 – Information about verifier

The norm EN 15804+A2 prepared CEN serves as a basic PCR	
Independent verification of the environmental declaration and data according to standard ČSN ISO 14025:2010 ☐ Internal External ☑	
The third party verifier: Technický a zkušební ústav stavební Praha, s.p. Prosecká 811/76a, Prague 9, 190 00 Czech Republic The certification authority for EPD is accredited ČIA – Český institut pro akreditaci, o.p.s., Osvědčení č. 95/2023.	

Product description and description of use

Expanded polystyrene (EPS) is produced by expanding solid beads of expandable polystyrene by the action of saturated water vapour into blocks, which are then cut into respective boards. During this process, the beads increase their volume from twenty to fifty times the original volume and a fine cell structure is formed inside each bead.

Pentane, a common natural gas produced, for example, in the digestive systems of animals or by the decomposition of plant material by micro-organisms, is used for foaming. Neither Styrofoam nor its manufacturing process contains, nor has ever contained, the ozone-depleting substances known as CFCs.

Isover EPS 150 is used as thermal insulation for floors and flat roofs. It withstands a permanent load of up to 3000 kg·m^{-2} at deformation < 2%.

Fig. 1 – Example of Isover EPS 150 application

Tab. 2 – Product parameters for EPD calculation

Parameter	**Value**
Thickness of product	100 mm (from range 20–140 mm)
Density	23–25 kg/m^3
Packaging for the distribution and transportation	Stretch film
Product used for the Installation	–
Implementation loss rate	5 %

Tab. 3 – Technical data / physical characterictics

Parameter	**Value**
Thermal resistance (100 mm) (EN 12162)	2.85 m^2·K·W^{-1}
Thermal conductivity coefficient λ_D (EN 12667)	0.035 W·m^{-1}·K^{-1}
Water vapour transmission (EN 12086)	30–70 [-]
Compressive strength (EN 826)	150 kPa
Tensile strength (EN 1607)	-
Reaction to fire class (EN 13 501-1)	E

More info www.isover.cz/dokumenty

Tab. 4 – Chemical and hazard information

Component	CAS	Concentration	EC number	EC hazards	R-phrases
Polystyrene	9003-53-6	92 %			
Pentane and mixture of isomers	109-66-0 (n-pentant) 78-78-4 (isopentan)	2 %		F	R11
Water	7732-18-5	5.3 %			
Flame retardant*	–	0.7 %			

*A mixture of retardants, none of which are on the candidate list of substances of very high concern subject to authorization.

More info www.isover.cz/dokumenty

Most important hazards: there is no warning notice with this product.

The verifier and program operator make no claims and are not responsible for the legality of the product.

LCA, input values

Tab. 5 – LCA calculation information

Functional unit (FU)	Providing a thermal insulation on 1 m^2 with a thermal resistance of 2.85 m^2·K·W^{-1}
System boundaries	„From cradle to gate with option“
Reference service life (RSL)	50 years
Cut-off rules	Boundary conditions for inputs and primary energy at the process level (1%) and information level (5%). Not included are flows resulting from human activities - transport of employees. Plant construction, machinery manufacture and transport system are not included as the associated flows are assumed to be negligible compared to the production of construction materials, relative to the life cycle.
Allocations	Allocation criteria are based on mass
Local conditions	Český Brod (Czech Republic)
Assessed period	2021
Comparable	According to EN 15804, EPD of construction products may not be comparable if they do not comply with this standard. According to ISO 21930, EPD might not be comparable if they are from different programmes.
Software	SimaPro 9.4.0.2
Characterization factors	Part of the calculation methods conforming to EN 15804+A2

	BUILDING ASSESSMENT INFORMATION						
	Information building life cycle information						SUPPLEMENTARY INFORMATION BEYOND THE BUILDING LIFE CYCLE
	A1-A3 PRODUCTS STAGE	A4-A5 CONSTRUCTION PROCESS STAGE	B1-B7 USE STAGE[3]		C1-C4 END OF LIFE STAGE		D Benefits and loads beyond the system boundary
	A1 Raw material supply	A4 Transport	B1 Use scenario	B5 Reconstruction scenario	C1 Deconstruction / Demolition scenario		REUSE RECOVERY RECYCLING POTENTIAL
	A2 Transport	A5 Construction – Installation proces	B2 Maintenance scenario	B6 Operational energy use scenario	C2 Transport scenario		
	A3 Manufacturing		B3 Repair scenario	B7 Operational water use scenario	C3 Waste processing scenario		
			B4 Replacement scenario		C4 Disposal scenario		
EPD: Cradle to gate Declared unit	Mandatory					no RSL	
EPD: Cradle to gate with option Declared unit / Functional unit	Mandatory	Inclusion optional 1) 2)	Inclusion optional 1) 2)		Inclusion optional 1) 2)	RSL 1)	Inclusion optional
EPD: Cradle to grave Functional unit	Mandatory	Mandatory 1) 2)	Mandatory 1) 2)		Mandatory 1) 2)	RSL 2)	Inclusion optional

1) Inclusion for a declared scenario
2) If all scenarios are given
3) The effect of the product in stage B1-B7 will be counted at the level of building construction

Fig. 2 – Life cycle phases counted (EN 15804+A2)

Life cycle stages

PRODUCT STAGE A1-A3

The production stage of expanded polystyrene is divided into 3 modules A1, A2 and A3, i.e. „Raw material supply", „transport" and „production".

According to standard EN 15804+A2 it is possible to merge modules A1, A2 and A3. This rule is applied in this EPD.

A1 – RAW MATERIAL SUPPLY

This module includes the mining and processing of all input raw materials and energy required for this process (outside the production plant).

Specifically, the feedstocks include foamable polystyrene beads, pentane, as well as a recyclable polystyrene component.

A2 – TRANSPORT TO PRODUCTION

Input raw materials are transported to the production line. In this case, the model includes road transport (average value) for each input material.

A3 – MANUFACTURING

This module includes the production of insulation material from inputs (input raw materials, energy, water, etc.), packaging (PE film).

Fig. 3 – Manufacturing process schema

Fig. 4 – Primary raw material

Fig. 5 – Pre-expansion

Fig. 6 – Aging of beads

Fig. 7 – Adding recyclates

Fig. 8 – Block production

Fig. 9 – Block stabilization

Fig. 10 – Board cutting

Fig. 11 – Cutting detail

Fig. 12 – Packaging

CONSTRUCTION PROCESS STAGE A4-A5

Description of the stage: The construction process is divided into 2 modules: transport to the building site A4 and installation A5.

A4 – TRANSPORT TO THE BUILDING SITE

This module includes transport from the production gate to the building site. Transport is calculated on the basis of a scenario with the parameters described in Table 6.

Tab. 6 – Scenario for the calculation of stage A4

Parameter	Value
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat, etc.	Average truck trailer with a 24t payload, consumption 21.5 liters for 100 km
Distance to construction site	115 km
Capacity utilisation (including empty returns)	99 % of the capacity in volume 40 % of empty returns
Bulk density of transported products	23–25 kg/m^3
Volume capacity utilisation factor	1 (by default)

A5 – INSTALLATION IN THE BUILDING

During this process a certain amount of material is left unprocessed, resulting in so-called pruning and waste. How this unprocessed and waste material is further handled is described in Table 7.

Tab. 7 – Scenario for the calculation of stage A5

Parameter	Value
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	5 %
Output materials (specified by type) as results of waste processing at the building site e.g. of collection for recycling, for energy recovering, disposal (specified by route)	Packaging wastes are 100% collected and modeled as recovered matter
Disposal of unused material	90 % recycling 10 % landfilled
Distance to factory, recycling center, landfill	115 km (recycling) 25 km (landfilled)
Type of fuel and consumption of the car or type of car used for transport	Average truck trailer with a 7,5–16 t payload, consumption 21.5 liters for 100 km
Volume capacity utilisation factor	1.3

USE STAGE B1-B7

The use stage is divided into the following modules:

- **B1 – USE**
- **B2 – MAINTENANCE**
- **B3 – REPAIR**
- **B4 – REPLACEMENT**
- **B5 – REFURBISHMENT**
- **B6 – OPERATIONAL ENERGY USE**
- **B7 – OPERATIONAL WATER USE**

Once installation of the material is completed no further technical operations are required in connection with the thermal insulation during the use of the building until the end of its service life. For this reason these values are not quantified in the EPD. The thermal savings potential shall be calculated at the building level, i.e. outside the EPD product boundaries.

END-OF-LIFE STAGE C1–C4

This stage includes various end-of-life modules, see below for details.

C1 – DECONSTRUCTION, DEMOLITION

The de-construction and/or dismantling of insolation products take part of the demolition of the entire building. In our case, the environmental impact is assumed to be very small and can be neglected.

C2 – TRANSPORT TO WASTE PROCESSING

A distance of 115 km to the recycling center and 25 km to the landfill is considered.

C3 – WASTE PROCESSING FOR REUSE, UTILIZATION AND/OR RECYCLING

EPS has great potential for further processing, recycling. In the considered scenario, a 90% take-back of the products to a production plant or recycling centre is calculated, where it is subsequently recycled into raw material for EPS production, or used in downcycling into polystyrene concrete, compactors or garden substrates.

C4 – REMOVAL

In the end-of-life scenario, 10 % landfilling of waste is considered.

Tab. 8 – Scenario for the calculation of stage C2, C3, C4

Parameter	Value
Collection process specified by type	2.5 kg (together with mixed construction waste)
Distance to factory, recycling centre, landfill	115 km (recycling) 25 km (landfilled)
Transport mode under consideration	Average truck trailer with a 24t payload, consumption 21.5 liters for 100 km
Amount of recycling	2.25 kg recycled
Landfilling	0.25 kg landfilled

REUSE/RECOVERY/RECYCLING POTENTIAL – D

90 % of the EPS is reusable, as detailed in the previous chapters. In the future, this figure is expected to increase to 100 % (at the expense of landfilling).

Results LCA

LCA model, aggregation of data and environmental impact are calculated from software SimaPro 9.4.0.2 database of generic data – Ecoinvent 3.8.

Resume of the LCA results detailed on the following tabs.

Tab. 9 – Environmental impacts of other thicknesses can be recounted by the design factor (on the material density and thickness base): except for A5

Thickness (mm)	20	30	40	50	60	80	100	120	140
Factor	0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.4

Tab. 10 – Parameters describing the basic environmental impacts

Indicator – Unit	Product stage	Construction process stage		Use stage	End-of-life stage				Reuse, recovery, recycling
	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-total Global warming potential **kg CO_2 eq.**	7.18E+00	4.78E-02	3.21E-03	ND	0	6.19E-02	6.76E-04	1.07E-03	-5.25E+00
GWP-fossil Global warming potential **kg CO_2 eq.**	7.17E+00	4.78E-02	3.21E-03	ND	0	6.18E-02	6.54E-04	1.06E-03	-5.25E+00
GWP-biogenic Global warming potential **kg CO_2 eq.**	5.52E-03	4.07E-05	2.91E-06	ND	0	5.68E-05	2.03E-05	4.49E-06	-4.90E-03
GWP-luluc Global warming potential from land use and land-use change **kg CO_2 eq.**	1.92E-04	1.88E-05	1.51E-06	ND	0	2.99E-05	1.50E-06	2.39E-07	-4.25E-06
ODP Stratospheric ozone depletion potential **kg CFC 11 eq.**	1.32E-07	1.11E-08	7.22E-10	ND	0	1.39E-08	3.32E-11	5.25E-10	-2.00E-08
AP Acidification potential, Cumulative exceedance **mol H+ eq.**	1.78E-02	1.94E-04	1.28E-05	ND	0	2.45E-04	3.49E-06	1.04E-05	-1.46E-02
freshwater EP Eutrophication potential, proportion of nutrients entering fresh water **kg P eq.**	1.96E-04	3.08E-06	2.41E-07	ND	0	4.76E-06	6.34E-07	6.05E-08	-9.68E-06
seawater EP Eutrophication potential, proportion of nutrients entering seawater **kg N eq.**	3.63E-03	5.84E-05	3.72E-06	ND	0	7.10E-05	6.12E-07	3.93E-06	-2.90E-03
soil EP Eutrophication potential, Cumulative overshoot **mol N eq.**	3.90E-02	6.38E-04	4.06E-05	ND	0	7.75E-04	5.39E-06	4.32E-05	-3.15E-02
POCP Ground-level ozone formation potential **kg NMVOC eq.**	1.08E-02	1.95E-04	1.25E-05	ND	0	2.39E-04	1.55E-06	1.23E-05	-8.55E-03
ADP-minerals and metals Raw material depletion potential for non-fossil sources **kg Sb eq.**	2.14E-06	1.66E-07	1.46E-08	ND	0	2.92E-07	1.78E-09	2.07E-09	-1.02E-06
ADP-fossil fuels Raw material depletion potential for fossil resources **MJ, calorific value**	2.01E+02	7.22E-01	4.79E-02	ND	0	9.23E-01	1.37E-02	3.43E-02	-1.71E+02
WDP Water scarcity potential (for users), water scarcity weighted by water scarcity **m^3 eq. scarcity**	1.29E+00	2.16E-03	1.59E-04	ND	0	3.11E-03	1.53E-04	1.09E-04	-1.06E+00

ND = „not declared"
The environmental impact of the product (Module B1-B7) will only become apparent when the product is accounted for within the structure the building.

Tab. 11 – Additional environmental impacts

Indicator – Unit	Product stage	Construction process stage		Use stage	End-of-life stage				Reuse, recovery, recycling
	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PM Potential occurrence of disease due to particulate matter emissions **Occurrence of the disease**	1.34E-07	4.12E-09	2.39E-10	ND	0	4.53E-09	1.29E-11	2.31E-10	-1.10E-07
IRP Potential effect of human exposure to the isotope U235 **kBq U235 eq.**	1.33E+00	3.71E-03	2.55E-04	ND	0	4.93E-03	3.67E-04	1.65E-04	-1.16E+00
ETP-fw Potential comparative toxic unit for ecosystems **CTUe**	1.16E+02	5.64E-01	3.91E-02	ND	0	7.59E-01	7.82E-03	1.90E-02	-1.02E+02
HTP-c Potential comparative toxic unit for humans **CTUe**	2.51E-08	5.91E-10	3.95E-11	ND	0	7.66E-10	1.11E-11	9.00E-12	-2.01E-08
HTP-nc Potential comparative toxic unit for humans **CTUh**	8.25E-10	1.83E-11	1.43E-12	ND	0	2.82E-11	5.86E-13	4.34E-13	-6.59E-10
SQP Potential Soil Quality Index **dimensionless**	1.88E+00	4.96E-01	2.83E-02	ND	0	5.35E-01	2.04E-03	7.64E-02	-4.50E-01

ND = „not declared“
The environmental impact of the product (Module B1-B7) will only become apparent when the product is accounted for within the structure the building.

Tab. 12 – Resource consumption

Indicator – Unit	Product stage	Construction process stage		Use stage	End-of-life stage				Reuse, recovery, recycling
	A1–A3	A4	A5	B1–B7	C1	C2	C3	C4	D
PERE Consumption of renewable primary energy, excluding energy sources used as raw materials **MJ**	2.50E+00	1.02E-02	8.09E-04	ND	0	1.60E-02	2.38E-03	6.99E-04	-1.16E+00
PERM Consumption of renewable primary energy sources used as raw materials **MJ**	0	0	0	ND	0	0	0	0	0
PERT Total consumption of renewable primary energy sources (primary energy and primary energy sources used as raw materials) **MJ**	2.50E+00	1.02E-02	8.09E-04	ND	0	1.60E-02	2.38E-03	6.99E-04	-1.16E+00
PENRE Consumption of non-renewable primary energy, excluding energy sources used as raw materials **MJ**	2.16E+02	7.67E-01	5.09E-02	ND	0	9.79E-01	1.44E-02	3.65E-02	-1.84E+02
PENRM Consumption of non-renewable primary energy sources used as raw materials **MJ**	0	0	0	ND	0	0	0	0	0
PENRT Total consumption of non-renewable primary energy sources (primary energy and primary energy sources used as raw materials) **MJ**	2.16E+02	7.67E-01	5.09E-02	ND	0	9.79E-01	1.44E-02	3.65E-02	-1.84E+02
SM Consumption of secondary raw materials **kg**	0	0	0	ND	0	0	0	0	0
RSF Consumption of renewable secondary fuels **MJ**	0	0	0	ND	0	0	0	0	0
NRSF Consumption of non-renewable secondary fuels **MJ**	0	0	0	ND	0	0	0	0	0
FW Net potable water consumption **m^3**	6.28E-06	0	0	ND	0	0	0	0	0

ND = „not declared“
The environmental impact of the product (Module B1-B7) will only become apparent when the product is accounted for within the structure the building.

Tab. 13 – Waste category

Indicator – Unit	Product stage	Construction process stage		Use stage	End-of-life stage				Reuse, recovery, recycling
	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
HWD Hazardous waste disposed of **kg**	4.52E-05	0	0	ND	0	0	0	0	0
NHWD Other waste disposed of **kg**	8.10E-03	0	0	ND	0	0	0	2.50E-01	0
RWD Radioactive waste disposed of **kg**	0	0	0	ND	0	0	0	0	0

Tab. 14 – Other output flows

Indicator – Unit	Product stage	Construction process stage		Use stage	End-of-life stage				Reuse, recovery, recycling
	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
MFR Construction units for reuse **kg**	0	0	0	0	0	0	0	0	0
MER Materials for recycling **kg**	1.97E-02	0	2.27E+00	0	0	0	2.25E+00	0	0
EEE Materials for energy recovery **kg**	3.39E-05	0	0	0	0	0	0	0	0
EET Exported energy **MJ per energy carrier**	0	0	0	0	0	0	0	0	0

Tab. 15 – the biogenic carbon content of the plant gate (FU = 1 m²)

Indicator – Unit	At the plant gate
Biogenic carbon content of the product **kg C**	0
Biogenic carbon content in the appropriate packaging **kg C**	0

ND = „not declared“
The environmental impact of the product (Module B1-B7) will only become apparent when the product is accounted for within the structure the building.
Packaging - without wooden floor, weight 0 kg per FU, calculation according to EN 16449.

LCA interpretation

Tab. 16 – The interpretation of results LCA according to SG PCR

	Product stage	Construction process stage		Use stage	End-of-life stage	Environmental impacts of the product	Positive benefits of recycling
		Transport	Installation				
	A1-A3	A4	A5	B1-B7	C1-C4	TOTAL	D
Global warming (kg CO_2equiv/FU)	7.18	0.05	0.00	0	0.06	**7.29** kg CO_2equiv/FU	-5,25
Non-renewable resources consumption 1) (MJ/FU)	200.58	0.72	0.05	0	0.97	**202.32** MJ/FU	-171,17
Energy consumption 2) (MJ/FU)	218.43	0.78	0.05	0	1.05	**220.30** MJ/FU	-185,13
Water consumption 3) (m^3/FU)	0.00	0.00	0.00	0	0.00	**0.00** m^3/FU	0.00
Waste production 4) (kg/FU)	0.01	0.00	0.00	0	0.25	**0.26** kg/FU	0.00

1) This indicator corresponds to the abiotic depletion potential of fossil resources.
2) This indicator corresponds to the total use of primary energy.
3) This indicator corresponds to the use of net fresh water.
4) This indicator expresses to the sum of hazardous, non-hazardous and radioactive waste disposed.

Environmental positive contribution

WASTE PROCESSING FOR REUSE, RECOVERY AND/OR RECYCLING

EPS waste material from the production process (e.g. offcuts from cutting blocks into boards) is returned through the recycling center back to the beginning of the production process and replaces part of the primary raw material. This waste is processed internally and does not leave the manufacturing plant. This process minimizes the amount of waste generated during the production of expanded polystyrene boards.

Fig. 13 – Raw material for the production of EPS

Isover collects all construction waste from EPS processing. The waste is returned to the production plant, where it is processed and then used for further production of EPS. Thanks to this, the amount of waste going to the landfill or incinerator is reduced. Isover also collects polystyrene from packaging from appliances, furniture and shipping boxes.

Only waste that meets the requirements set for input raw materials can be used for further processing (recycling). In practice, this means that for our further processing of the recycled material, it is important that the delivered recycled material is free of impurities, without any adhesives, paint residues, wood, plastic, paper labels, metal, food residues, sealants, adhesives, mortar, etc. it is necessary to be able to crush the delivered recyclate.

Fig. 14 – EPS offcuts from production

We recycle standard white and grey polystyrene. It is also possible to take back the pink plinth polystyrene for further processing.

Fig. 15 – Recycling and circular economy

Our goal is to obtain a greater amount of recycled material for plants and to ease the need for companies to recycle waste. We try to give customers, implementation companies and distributors the appropriate service.

RECYCLED CONTENT

The total amount of recycled content in the product Isover EPS 150 according EN ISO 14021 part 7.8 is greater than 15 %.

Tab. 17 – Recycled content

Parameter	Value
Recycled content	> 15 %

The calculation of the recycled content is based on the weight of the product.
Data on raw materials and production from 2021 are used in the calculation.

Additional information

ENVIRONMENTAL POLICY OF SAINT-GOBAIN

The Saint-Gobain company strives to be a leader in the field of sustainable smelting, therefore it optimizes all processes associated with the supply of environmentally friendly products and promotes the construction of sustainable buildings that consume less energy, resources, produce less waste and emissions in the long term with its integrated solutions.

For all Saint-Gobain products, emphasis is placed on reducing their impact on the environment at all stages of the life cycle and at the same time improving all the useful properties of the products.

The Saint-Gobain group has long-term goals: zero accidents in relation to the environment and constant reduction of environmental impacts (see following Fig. 16). Using mid-term and short-term goals, it then fulfills the long-term goals. The Group places particular emphasis on the following environmental areas: raw materials, waste and recycling, energy, atmospheric emissions, water, biodiversity and accidents with an impact on the environment.

By 2030, Saint-Gobain has set ambitious commitments in the areas of reducing CO_2 emissions, recycling waste, reducing water consumption and product transparency.

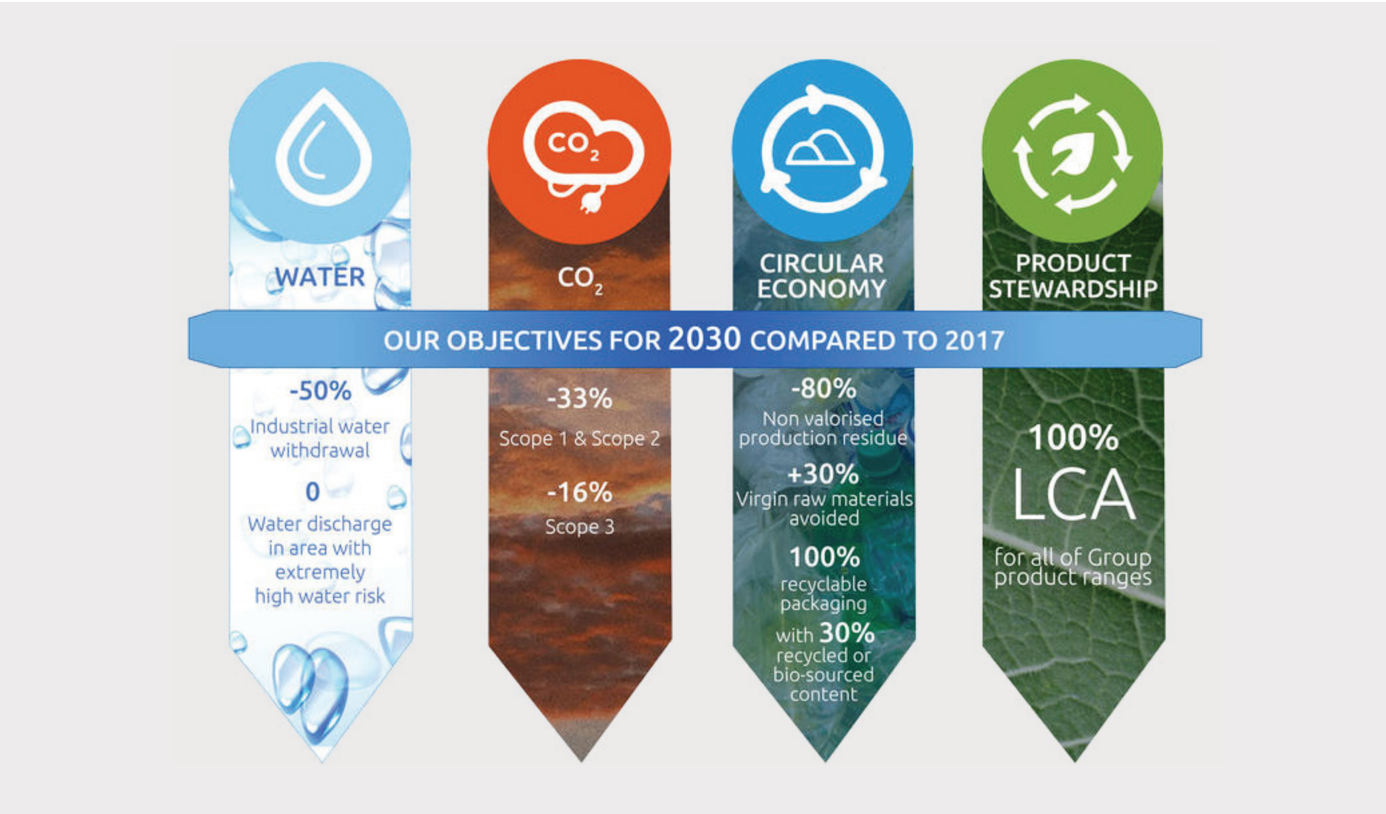


Fig. 16 – Long term goals of the group Saint Gobain in the environmental

More informations CSR (Corporate Sustainability Report) on the website www.saint-gobain.com

Production process follows in addition these international standards:
EN ISO 9001, ISO 14001, OHSAS 18001 a ISO 50001

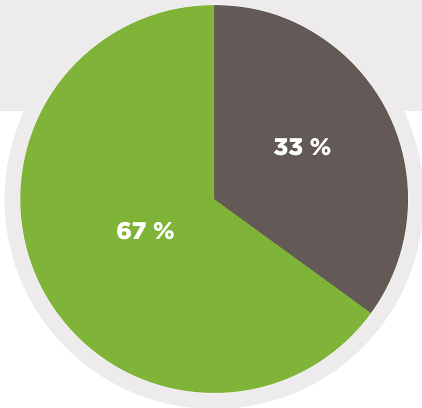
CERTIFIED
ISO 9001 · ISO 14001
OHSAS 18001 · ISO 50001

THE ELECTRICITY PRODUCTION MODEL CONSIDERED FOR THE MODELLING OF SAINT-GOBAIN PLANT IS:

401 Electricity (Czech Republic, 2021)

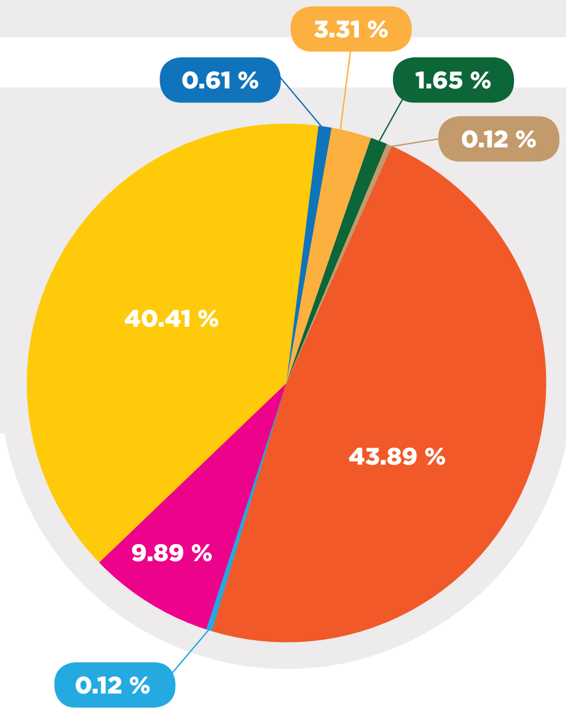
Tab. 18 – Energy mix for Saint-Gobain production plants

Type of information	Description
Reference year	2021
Energy mix	Distribution of energy sources in production plants Renewable energy sources (hydro): 67 % Energy mix of the Czech Republic: 33 %



Tab. 19 – National energy mix

Type of information	Popis
Location	Representative of average production in Czech Republic
Reference year	2021
Type of data set	Cradle to gate
Source	OTE CZ*
Geographical representativeness description	Split of energy sources in Czech republic Coal and peat: 43.89 % Fuel oil: 0.12 % Gas: 9.89 % Nuclear: 40.41 % Hydro: 0.61 % Biomass: 3.31 % Solar PV: 1.65 % Other non-thermal: 0.12 %



*Residual energy mix. OTE CZ [online]. [cit. 2023-01-13]. Available from www.ote-cr.cz/cs/statistika/zbytkovy-energeticky-mix

Source

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