

VALVES

ENVIRONMENTAL PRODUCT DECLARATION

COMPANY INFORMATION: REC Indovent AB

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Quality certified ISO 9001:2015
Environmental certified ISO 14001:2015

Following data concerns CKK, with size 125. The other valves are similar, and the following information can be assumed to be valid for all valves.

1. PRODUCT DESCRIPTION

The Environmental Product Declaration concerns following products:
Supply-air valves: CKT, CKE, CNE
Exhaust valves: CKS, CKK, CNK
Natural ventilation valves: CRT, CRP
Fire damper valve: CKP
CKP has Type approval certificate no 1459/93.

For recommended range of application we refer to the product catalogue.

2. DECLARATION OF CONTENTS

The valves are made of sheet steel and is stove enamelled in epoxy. The valves are equipped with a gasket to form an airtight seal with the mounting ring. CNE, CKE, CNK and CKK have a gasket made of foam rubber (polyurethana, superloan E25). The other valves have a gasket made of cellular plastic (LD-polyethylene, termolon). CKP has a fuse made of brass plates soldered with tin. The fuse also contains a spring of stainless steel and a pin made of hardened steel.

The products' does not contain substances that are included in the Priority guide PRIO from Swedish National Chemical Inspectorate.

3. INPUT MATERIALS

Material:	weight-%	weight(kg)
Sheet steel	97,0	0,225
Polyurethane (or LDPE)	1,5	0,003
Paint	1,5	0,003

(The paint contains of 60% polyester and 40% epoxy)
Additives: Glue (Emuterm)

At production of input materials, recycled materials are used to a varying extent; 15-35 %.

Energy consumption during material production:

Material:	MJ/valve:
Sheet steel	0,80
Paint	0,17
Polyurethane	0,13
Total:	1,10

Emissions to water during material production (expressed as g/valve):

Chloride (Cl ⁻)	1,44
Sodium (Na ⁺)	0,64
Nitrate (NO ₃ ⁻)	0,13
Suspended material	0,11
COD	0,077

Emissions to air during material production (expressed as g/valve):

Carbon dioxide (CO ₂)	122,99
Nitrogen oxides (NO _x)	0,31
Sulphur oxides (SO _x)	0,13
Methane (CH ₄)	0,096
Carbon monoxide (CO)	0,012

4. PRODUCTION

Energy consumption during production phase:

Approximately 4,4 MJ/valve

Emissions to water: N/A

Emissions to air: Dry gas 0,37 kg/h
(This is for the production plant's total production)

Production waste (rest products):

Powder waste 3,5 g/valve
Damper waste 32,8 g/valve
The powder is specially taken care of and all damper waste is recycled.

5. DISTRIBUTION OF FINAL PRODUCT

Packing material: Cardboard boxes, paper, polyethylene bag, polypropylene tape. The packing material can be recycled and then re-used, producing either new material or energy.

Transportation:

Average emissions from transportation by truck for 100 km (26 tonnes), expressed with characterization factors for a functional unit, weight 1,35 kg:

GWP	0,00024 kg CO ₂ -equivalents
AP	0,00007 kg SO ₂ - equivalents
POCP	0 g ethene-equivalents
EP	0,00002 kg PO ₄ ³⁻ -equivalents

The majority of REC Indovent ABs transportations are carried out by truck.

6. USING PHASE

The product is emission free during use.

7. DISPOSED PRODUCT

The disposed product does not contain environmentally hazardous waste. Materials that are parts of the disposed product should be separated in order to enable re-use alternatively recycling.

8. ENVIRONMENTAL IMPACT

Environmental impact that the largest emissions are associated with:

Chloride + Sodium	No environmental effect
Nitrate	Nitrification, acidification
COD	Consumption of oxygen in seas and lakes
Carbon dioxide	Greenhouse effect
Sulphur oxides	Acidification
Nitrogen oxides	Groundleve ozone, acidification, nitrification

9. OTHER INFORMATION

Characterization factors according to SS-EN15804. Calculated according to the standard SS-EN 15978. TYPE II - ISO 14025

Characterization factors for production phase:	GWP (Global Warming Potential)	0,13 kg CO ₂ - equivalents
	AP (Acidification Potential)	0,29 g SO ₂ - equivalents
	POCP (Photochemical Ozone Creation Potential)	0,00086 g ethene-e equivalents
	EP (Eutrophication potential)	0,60 g PO ₄ ³⁻ - equivalents