

# Building product declaration 2015

according to BPD associations' standardised format eBVD2015

Formo 1 - LCA, LCAL, LKAN, LKA, LKAL, PCA, PCAL, PKA, PKAL

## 1. BASIC DATA

### Document data

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A-7300009-00795-0-123

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Changes relates to:

Addition of GTIN.

### Formo 1 - LCA, LCAL, LKAN, LKA, LKAL, PCA, PCAL, PKA, PKAL

Article name:

Formo 1 - LCA, LCAL, LKAN, LKA, LKAL, PCA, PCAL, PKA, PKAL

### Article No/ID concept

Article identity: GTIN

7319660264060, 7319660264077, 7319660267924, 7319660267931, 7319660267948, 7319660267955, 7319660267962, 7319660267979, 7319660267986, 7319660267993, 7319660268013, 7319660268020, 7319660268037, 7319660268044, 7319660268051, 7319660269492, 7319660269508, 7319660269515, 7319660269522, 7319660269539, 7319660269546, 7319660269553, 7319660273208, 7319660273215, 7319660273222, 7319660273239, 7319660273246, 7319660273253, 7319660273260, 7319660273277, 7319660273284, 7319660273291, 7319660273307, 7319660273321, 7319660273338, 7319660273345, 7319660273352, 7319660273369, 7319660273376, 7319660273390, 7319660273406, 7319660273413, 7319660273420, 7319660273437, 7319660273444, 7319660273451, 7319660273468, 7319660273475, 7319660273482, 7319660273499, 7319660273505, 7319660273512, 7319660273529, 7319660273536, 7319660351401, 7319662003704, 7319666448198, 7319666448204, 7319666448211, 7319666448228, 7319666448235, 7319666448242, 7319666448259, 7319668500023, 7319668500108, 7319668500115, 7319668500122, 7319668500139, 7319668500146, 7319668500153, 7319668501167, 7319668501228, 7319668501358, 7319668501501, 7319668501518, 7319668501525, 7319668501532, 7319668501549, 7319668501556, 7319668501563, 7319668501570, 7319668501587, 7319668501594, 7319668501600, 7319668501617, 7319668501624, 7319668501631, 7319668501648, 7319668501655, 7319668501662, 7319668501808, 7319668501815, 7319668501822, 7319668501839, 7319668501846, 7319668501853, 7319668576387, 7319668576394, 7319668576400, 7319668576417, 7319668603953, 7319668603960, 7319668603977, 7319668603984, 7319668603991, 7319668604004, 7319668604011, 7319668604028, 7319668604035, 7319668604042, 7319668604059

### Product group/Product group classification

Product group system	Product group id
BK04	21004
BSAB96	QM

Article description:

Circular/square diffuser with an perforated/or unperforated face plate. Suitable for horizontal supply and exhaust of cooled air. Can be installed in a plenum box. Assessments at Byggvarubedömningen etc. are registered under the name "Formo 1". It is also possible to use the article name as search criteria.

Declarations of performance:

Not applicable

Declaration of performance number:

Other information:

# Lindab Sverige AB

Company name:

Lindab Sverige AB

Organisation number:

556247-2273

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SE556247227301

Website:

www.lindab.se

GLN:

DUNS:

## Environmental certification system



BREEAM



BREEAM-SE



LEED 2009



LEED version 4



Miljöbyggnad (Swedish certifica

## References

### Reference

Widman J "Stålet och miljön". Stålbyggnadsinstitutet-Jernkontoret, Stockholm (2001)

Carbon Footprint study for Lindab produkts performed by WSP 2010

The International Aluminium Institute (IAI), Sustainability, <http://www.world-aluminium.org>, 2017-02

The International Stainless Steel Forum (ISSF), <http://www.worldstainless.org/>, 2017-02

Jernkontoret, Hälsoaspekter, <http://www.jernkontoret.se/>, 2017-02

## 2. SUSTAINABILITY WORK

### Company's certification



ISO 9001



ISO 14001

Other:

### Policies and guidelines



The company has a code of conduct/policy/guidelines for dealing with social responsibility in the supplier chain, including produces for ensuring the requirements



This is third-party audited

If yes, which if the following guidelines have you affiliated to or management system you have implemented



UN guiding principles for companies and human rights



ILO's eight core conventions



OECD Guidelines for Multinational Enterprises



UN Global Compact



ISO 26000

Other policy guidelines

## Management system

If you have a management system for corporate social responsibility, what out of the following is included in the work?

- Mapping
- Risk analysis
- Action plan
- Monitoring

Sustainability reporting guidelines:

GRI - Global Reporting Initiative

## 3. DECLARATION OF CONTENTS

### Chemical content

Enter chemical content for the whole article. The concentration is calculated at component level according to the principle of "once an article always an article".

Is there a safety data sheet for the article?

Not applicable

Is there classification of the article?

Not applicable

Enter which version of the candidate list has been used (Year, month, day)

For complex products, the concentration of included substances has been calculated at:

whole construction product

The article is covered by the RoHS Directive:

No

Enter the weight of the article:

Enter how large a proportion of the material content has been declared [% ]:

100

If the article contains nanomaterials deliberately added to obtain a particular function, enter these here:

The product does not contain deliberately added nanomaterial

Enter the proportion of volatile organic substances [g/litre], applies only to sealants, paints, varnishes and adhesives:

Is the article registered in Basta?

Yes

Other information:

### Article and/or sub-components

Phase	Delivery		
Component	Color	Weight% of product	=1.65

#### Comment

Material	Substance	Concentration interval (%)	EG/CAS/Alternative designation	Candidate list	Phasing-out substance
	Barium Sulphate	=20	007727-43-7	<input type="checkbox"/>	<input type="checkbox"/>
	Epoxy resin	=38.79	025036-25-3	<input type="checkbox"/>	<input type="checkbox"/>
	Iron oxide	=2.42	001309-37-1	<input type="checkbox"/>	<input type="checkbox"/>
	Titanium dioxide	=38.79	013463-67-7	<input type="checkbox"/>	<input type="checkbox"/>

Component	Front plate, upper part and other steel	Weight% of product	=95.97
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#### Comment

The data provider is solely responsible for data on articles/products that have been registered in the database. The data provider and the Swedish Association of Construction Product Industries cannot be held responsible for correct information incorrectly entered into the database.

Material	Substance	Concentration interval (%)	EG/CAS/Alternative designation	Candidate list	Phasing-out substance
	Galvanized steel	=100	EN 10346:2015	<input type="checkbox"/>	<input type="checkbox"/>

Component	Nuts and washers	Weight% of product	<1
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**Comment**

Material	Substance	Concentration interval (%)	EG/CAS/Alternative designation	Candidate list	Phasing-out substance
	Steel	=100	CK15 / 1.1141	<input type="checkbox"/>	<input type="checkbox"/>

Component	Safe Sealing Strip	Weight% of product	=0.64
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**Comment**

Material	Substance	Concentration interval (%)	EG/CAS/Alternative designation	Candidate list	Phasing-out substance
Rubber		=100		<input type="checkbox"/>	<input type="checkbox"/>
Rubber	EPDM	=79.69	25034-71-3	<input type="checkbox"/>	<input type="checkbox"/>
Rubber	Paraffin oil	=20.31	8012-95-1	<input type="checkbox"/>	<input type="checkbox"/>

Comment: Health test performed without remarks

Component	Screws etc.	Weight% of product	=0.87
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**Comment**

Material	Substance	Concentration interval (%)	EG/CAS/Alternative designation	Candidate list	Phasing-out substance
	Aluminium	=100	Alu 6061	<input type="checkbox"/>	<input type="checkbox"/>

Component	Spring and other stainless steel parts	Weight% of product	=0.75
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**Comment**

Material	Substance	Concentration interval (%)	EG/CAS/Alternative designation	Candidate list	Phasing-out substance
	Spring steel	=100	AISI 301 / 1.4310	<input type="checkbox"/>	<input type="checkbox"/>

Component	Steel band	Weight% of product	<0.2
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**Comment**

Material	Substance	Concentration interval (%)	EG/CAS/Alternative designation	Candidate list	Phasing-out substance
	Steel	=100	AZ SS-EN 10215	<input type="checkbox"/>	<input type="checkbox"/>

## 4. RAW MATERIALS

### Raw materials

<b>Component</b>	<b>Material</b>	<b>Transport type</b>
	Steel	Ship
<b>Country of raw material extraction</b>	<b>City of raw material extraction</b>	
Sweden	-	
<b>Country of manufacture/production</b>	<b>City of manufacture/production</b>	
<b>Comment</b>		
The steel raw material is produced at different smelting plants, mainly in the EU, according to the detailed specification of the current standard. The sheet dimensions are then adjusted at the production unit in Grevie.		

## Total recycled material in the article

Is recycled material included in the article?

<b>Material</b>		
Aluminium		
<b>Proportion after the consumer stage</b>	<b>Proportion before the consumer stage</b>	<b>Weight/percent by weight</b>
39	61	57,9 %
<b>Comment</b>		
The amount of recycled aluminium varies depending on availability. Hence it can vary between 0 and 100%. All collected aluminium are being reused.		
.....		
<b>Material</b>		
Stainless steel		
<b>Proportion after the consumer stage</b>	<b>Proportion before the consumer stage</b>	<b>Weight/percent by weight</b>
74,7	25,3	75 %
<b>Comment</b>		
About 75% recycled material are being used in the production of stainless steel.		
.....		
<b>Material</b>		
Steel		
<b>Proportion after the consumer stage</b>	<b>Proportion before the consumer stage</b>	<b>Weight/percent by weight</b>
100	0	20 %
<b>Comment</b>		
About 20% recycled material are being used in the production of steel.		

## Renewable material

Enter proportion of renewable material in the article (short cycle, less than 10 years):

0

Enter proportion of renewable material in the article (long cycle, more than 10 years):

0

Included biobased raw material is tested according to ASTM test method D6866:

Is there supporting documentation for the raw materials for third-party certified system for control of origin, raw material extraction, manufacturing or recycling processes or similar (for example BES 6001:2008, EMS certificate, USGBC Program)? If yes, enter system(s):

No

## Wood raw materials

Wood raw materials are included

Included wood raw material is certified

How large a proportion is certified [%]?

What certification system has been used (for example FSC, CSA, SFI with CoC, PEFC)?

Reference number:

Enter logging country for the wood raw material and that following criteria have been met. Country of logging:

Does not contain type of wood or origin in CITES appendix of endangered species

The timber has been logged legally and there is certification for this

## 5. ENVIRONMENTAL IMPACT

### Environmental impact during life cycle of the article, production phase module A1-A3 under EN

Has environmental product declaration been drawn up according to EN 15804 or ISO 14025 for the article?

These product-specific rules, known as PCR, have been applied:

Registration number / ID number for EPD:

Climate impact (GWP100) [kg CO<sub>2</sub>-eq]:

Ozone depletion (ODP) [kg CFC 11-eq]:

Acidification (AP) [kg SO<sub>2</sub>-eq]:

Ground-level ozone (POCP) [kg ethene-eq]:

Eutrophication (EP) [kg (PO<sub>4</sub>)-3-eq]:

Renewable energy [MJ]:

Non-renewable energy [MJ]:

If calculation has been made in Green Guide, enter which rating:

If there is environmental product declaration or other life cycle assessment, describe how the environmental impact of the article is taken into account from a life cycle perspective:

The information refer to "gate to gate", inflows (raw materials, inputs, energy, etc.) for the registered product into the manufacturing unit, and outflows (emissions and waste) from it and relates to unit of product 1 kg.

Country of final manufacture: Denmark / Czech Republic

Energy used in the manufacture of the product: electricity 0,58 kWh per produced kilo.

Transport: <99% truck, deliveries to the customer/branch, <1% electric forklift.

Climate impact from internal transports: CO<sub>2</sub> 0,0025 kg, CH<sub>4</sub> <0,0001 kg and N<sub>2</sub>O <0,0001 kg.

Emissions to air, water or soil from the manufacture of the product, climate impact from operations: carbon dioxide equivalents (CO<sub>2</sub>-e) ≈ 1,5 kg per kilo product (Not included in Lindab carbon footprint study).

The production itself causes no emissions to air, water or land.

Residual products from the manufacture of the product: <30% steel scrap, 100% is recycled, waste code 17 04 05. <18% aluminium scrap, 100% is recycled, waste code 17 04 02. All waste is taken care of by a carrier with the necessary permits. No waste is exported.

For information about raw materials, distribution, waste etc., see the other sections.

## 6. DISTRIBUTION

### Distribution of finished article

Does the supplier use Retursystem Byggpall?

Yes

Does the supplier apply any system with multiple-use packaging for the article?

No

Does the supplier take back packaging for the article?

No

Is the supplier affiliated to a system for product responsibility for packaging?

Yes

If yes, which packaging and which system?

Förpacknings & Tidningsinsamlingen

Other information:

If possible products are packed together. The packaging materials include wood, cardboard, and plastic wrap. Wooden pallets are being reused. All packaging consists of recyclable material, the cardboard Lindab uses for packaging consist of 97,5% recycled material.

Shipments of manufactured goods are mainly transported by truck to the customer/branch. The average transporting distance is <500 km.

## 7. CONSTRUCTION PHASE

### Construction phase

Does the article make special requirements in storage?

Yes

Specify

To prevent soiling and oxidation, the product should be stored protected from the weather.  
See Lindab's product catalogue for more information.

Does the article make special requirements for surrounding building products?

No

Specify

Other information:

## 8. USE PHASE

### Use phase

Does the article make requirements for input materials for operation and maintenance?

No

Specify:

Does the article require supply of energy during operation?

No

Specify:

Estimated technical service life for the article:

>50 years

Comment:

Lifetime depends on the environment where the product is being used. Corrosive environments can affect the life of the product negatively. There is a special instruction for the care of this product, see Lindab's product catalogue for more information. The product can be adapted to work with new tech.

Is there energy labelling under the Energy Labelling Directive (2010/30/EU) for the article?

If yes, enter labelling (G to A, A+, A++, A+++):

Not applicable

Other information:



## 9. DEMOLITION

### Demolition

Is the article prepared for disassembly (dismantling)?

Yes

Specify:

The parts can easily be separated.

Does the article require special measures for protection of health and environment in demolition/disassembly?

No

Specify:

Other information:

## 10. WASTE MANAGEMENT

### Delivered article

Is the supplied article covered by the Ordinance (2014:1075) on producer responsibility for electrical and electronic products when it becomes waste?

No

Is reuse possible for the whole or parts of the article when it becomes waste?

Yes

Specify:

The entire product can be reused.

Is material recovery possible for the whole or parts of the article when it becomes waste?

Yes

Specify:

~99% of the material can be recycled.

Is energy recovery possible for the whole or parts of the article when it becomes waste?

Yes

Specify:

Heat recovery occurs at smelter.

Does the supplier have restrictions and recommendation for re-use, material or energy recovery or landfilling?

Yes

Specify:

Should be recycled according to recommended waste code.

#### Waste code for the delivered article when it becomes waste

170203 - 03 Plast.

170402 - 02 Aluminium.

170405 - 05 Järn och stål.

When the supplied article becomes waste, is it classified as hazardous waste?

No

### Mounted article

Is the mounted article classified as hazardous waste?

No

### Other information

## 11. INDOOR ENVIRONMENT

### Indoor environment

The article is not intended for indoor use

The article does not produce any emissions

Emissions from the article not measured

Does the article have a critical moisture state?

No

If yes, state what:

#### Noise

Can the article give rise to own noise?

No

Value:

Unit:

Measuring method:

#### Electrical field

Can the article give rise to electrical fields?

No

Value:

Unit:

Measuring method:

#### Magnetic fields

Can the article give rise to magnetic fields?

No

Value:

Unit:

Measuring method:

### Paints and varnishes

The article is resistant to fungi and algae in use in wet areas

### Emissions

The article produces the following emissions in intended use:

### Other information