



## Environmental product declaration

### Lindab Heating panels / Heating strips. Atrium H & C/Loggia.

20090513

#### The Product

This environmental product declaration refers to heating panels and heating strips. The heating panels and heating strips are manufactured by Lindab.

Lindab's heating panels and heating strips consist of enamelled aluminium strips with internal copper pipes which are connected with soldered-on copper pipes. The panels differ from the strips in that the panels have an aluminium end plate.

#### Manufacturing

Lindab's heating panels / heating strips are manufactured from strips that are joined together mechanically (not welded). At the outer edge of the strips, an end beam is fastened, again mechanically. Then a copper pipe is soldered on with spelter solder, to connect the strips with regard to flow. Depending on the estimated flow in the unit, different types of hard-soldered copper pipes are used with the panels / strips. To reinforce the design, cross brackets are attached to the panels, one per metre. When assembly is complete, the product is painted. Painting is done with powder coating, which is applied automatically. The powder coating is recirculated. After painting, the back of the product is insulated with Styrofoam LB. Then the product is packaged in cling wrap and is fitted with Styrofoam feet, and is packed on a wooden pallet. Also, the product is shipped with suspension hardware. The product is normally delivered to the customer by truck.

Materials included in a 4-metre heating panel, 600 wide. % by wt

Aluminium:	Strips	GA 5050-02	3.75 Kg	31.2 %
	End pieces	SS 4054-02	0.53 Kg	4.4 %
	Cross bracket	SS 4104-06	0.36 Kg	3.0 %
	End beam	SS 4007-14	3.20 Kg	26.6 %
Copper:	Strips	SS 5015-02	1.57 Kg	13.1 %
	Connection pipe	SS 5015-02	0.33 Kg	2.7 %
Solder:	Spelter solder (Sn97Ag3)	EN 29453	< 1.5 g	
	Hard solder (Cu90Ag10)		< 1.5 g	
Paint:	Powder coating	Epoxy-polyester	0.23 Kg	1.9 %
Insulation:	Styrofoam	Polystyrene	1.50 Kg	12.5 %
Packaging:	Cling wrap			
	Styrofoam feet	Polyethylene		
Suspension system:	Galvanised steel	SS 1312-00	0.40 Kg	3.3 %
	Aluminium	SS 4104-06	0.05 Kg	0.4 %
Fasteners:	Screws	Steel (PIAS )	< 40 g	
	Pop rivets	Aluminium	< 50 g	
	Other	Aluminium	0.10 Kg	0.8 %
<b>Tot:</b>			<b>12.0 Kg</b>	

#### Use

Lindab's panels and heating strips are used in spaces where hydronic heating is required. Lindab's products do not affect the environment negatively when in use. There are no or very little demonstrable chemical emissions from the product materials.

Teknoterm's heating panel and heating strips are maintenance free, apart from normal cleaning. The products have a technical life of at least 25 years.

#### Recycling

When disposing of used Lindab products, it is possible to recycle all material with the exception of the insulation. For the insulation, incineration is recommended. As the insulation is not biodegradable, dumping is not recommended. The principal material in the product is aluminium. Aluminium has a high degree of recyclability. Nor are other materials, copper and steel, a problem to recycle.

Recyclable material is 85.5%. Non-recyclable material 14.4%. Lindab accepts products that are no longer useful.