

Polaris I – Environmental product declaration

The Product

This environmental product declaration refers to Frenger Systems Polaris I supply air beam. This product is manufactured at the company's manufacturing facility in Scandinavia.

Manufacturing

Polaris I is based on a battery of fins. This battery consists of a series of aluminium fins on a copper pipe. The fins are in metallic contact with the copper pipe by way of the pipe being expanded. At the ends, copper connections are soldered in place, selected for the correct pressure drop and flow (15 or 22 mm). Bent sheets of steel are then joined with the battery for the best possible function and aesthetics.

The product is powder coated in the colour requested. Finally, the product is packaged and delivered to the customer by truck.

Materials included in a 1.8-metre Polaris I, 600 wide

					% by wt
Aluminium	Battery Pop rivets		5.95 Kg <10 g	5.59 Kg	15.5 %
Copper: Battery			6.15 Kg	6.15 Kg	17 %
Steel	End plates	SS 1312 paint	1.55 Kg		
	Duct & casing	SS 1312 paint	14.85 Kg <10 g		
	Screws Suspension system Under plate	SS 1312-00 SS 1312-00	0.50 Kg 6.80 Kg	23.70 Kg	64.5 %
Solder	Shelter solder (Sn9797Ag3)		<15 g		
	Hard solder (Cu90Ag10)		<15 g		
Paint	Powder coating	Epoxy- polyester	0.65 Kg	0.65 Kg	1.7 %
Packaging	Box Pallet	Paper Wood			
Total:			36.5 Kg		

Use

Polaris I is used for spaces, which require cooling, where air is supplied through the beam. During operation, the product does not produce any demonstrable chemical emissions. Polaris I is maintenance free, apart from normal cleaning. The product has a technical life of at least 25 years.

Utilisation of Recycled Materials

Frenger adopts a responsible procurement policy whereby 20% of the steel and copper and more than 50% of the aluminium used in the construction of the product is already recycled. Therefore, more than 24% of the finished product is derived from recycled sources. Furthermore, the company adopts a "smart" packaging policy that ensures that minimum amounts of plastic materials are used whilst ensuring product protection, and that all timber used in the construction of crates is derived from sustainable sources.

End-of-Life Recycling

At the end of the products' useful life the company's manufacturing facility accepts its own products in return, because nearly all of the materials can subsequently be recycled. Please contact Frenger Systems for instructions with regard to return transport and packaging.