

# Statement of Verification

BREG EN EPD No.: 000255

Issue 1

BRE/Global

This is to verify that the

**Environmental Product Declaration** 

provided by:

Altro Ltd

is in accordance with the requirements of:

EN 15804:2012+A1:2013

and

**BRE Global Scheme Document SD207** 

This declaration is for:

Altro Standard Safety Floor Products, 2 to 2.5mm

## **Company Address**

Works Road Letchworth Garden City Hertforshire SG6 1NW United Kingdom



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Signed for BRE Global Ltd

09 March 2019
Date of First Issue

Laura Critien

Operator

09 March 2019

Date of this Issue

08 March 2024

**Expiry Date** 



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## **Environmental Product Declaration**

**EPD Number: 000255** 

### **General Information**

EPD Programme Operator	Applicable Product Category Rules			
BRE Global Watford, Herts WD25 9XX United Kingdom	BRE Environmental Profiles 2013 Product Category Rules for Type III environmental product declaration of construction products to EN 15804:2012+A1:2013			
Commissioner of LCA study	LCA consultant/Tool			
Altro Ltd Works Road Letchworth Garden City Hertfordshire SG6 1NW United Kingdom	Fei Zhang / BRE LINA v2.0			
Declared/Functional Unit	Applicability/Coverage			
1m <sup>2</sup> of PVC flooring	Manufacturer specific product range			
EPD Type	Background database			
Cradle to Gate	ecoinvent v3.2			
Demonstra	ation of Verification			
	ation of Verification 5804 serves as the core PCR <sup>a</sup>			
CEN standard EN 15				

### a: Product category rules

b: Optional for business-to-business communication; mandatory for business-to-consumer communication (see EN ISO 14025:2010, 9.4)

#### **Comparability**

Environmental product declarations from different programmes may not be comparable if not compliant with EN 15804:2012+A1:2013. Comparability is further dependent on the specific product category rules, system boundaries and allocations, and background data sources. See Clause 5.3 of EN 15804:2012+A1:2013 for further guidance



### Information modules covered

	D		0			Use stage						E 1 6 116			Benefits and loads beyond	
Product		τ	Construction		Related to the building fabric				Related to End-of-life the building		End-of-life			the system boundary		
<b>A</b> 1	A2	А3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	C3	C4	D
Raw materials supply	Transport	Manufacturing	Transport to site	Construction – Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse, Recovery and/or Recycling potential
$\overline{\mathbf{Q}}$	$\overline{\mathbf{Q}}$	$\overline{\mathbf{Q}}$														

Note: Ticks indicate the Information Modules declared.

### Manufacturing site

Altro Ltd Works Road	Click here to enter address.
Letchworth Garden City Hertfordshire	
SG6 1NW United Kingdom	

### **Construction Product:**

### **Product Description**

This product range covers 2.0 mm to 2.5 mm thick sheet PVC based Standard Safety Flooring without PUR Lacquer, to EN 13845. This product range representative EPD covers the products **Altro ContraX**, **Altro Classic 25**, **Altro Marine 20**, **Altro Impressionist II**.

### **Technical Information**

The below table covers the basic technical properties of the four products within the 2.0 mm to 2.5 mm thick sheet PVC based Standard Safety Flooring without PUR Lacquer product range. For further properties, please see the specific product's page on Altro's website <a href="https://www.altro.co.uk">https://www.altro.co.uk</a>.

Property	Altro ContraX	Altro Classic 25	Altro Marine 20	Altro Impressionist II		
Thickness (EN 428)	2 mm	2.5 mm	2.0 mm	2.0 mm		
Mass per area (EN 430)	2.5 kg/m <sup>2</sup>	3.2 kg/m <sup>2</sup>	2.5 kg/m <sup>2</sup>	2.6 kg/m <sup>2</sup>		
Slip resistance		_				
(TRRL)	≥ 36	≥ 45		≥ 36		
(EN 13845)	ESf	ESf	ESb	ESf		
(EN 13893)	DS	DS	DS	DS		
(DIN 51130 / DIN 51097 (Altro Marine 20 Only)	R10	R11	R10 / Class C	R10		
Fire performance (EN 13501-1, EN ISO 9239-1, EN ISO 11925-2)	Class Bfl-s, ≥8kW/m², pass					
CAN/ULC	S102.2 (Tested)					



ASTM E648	Class 1
ASTM E662	<450

#### **Main Product Contents**

The raw material composition of the product range covered by this EPD is given below.

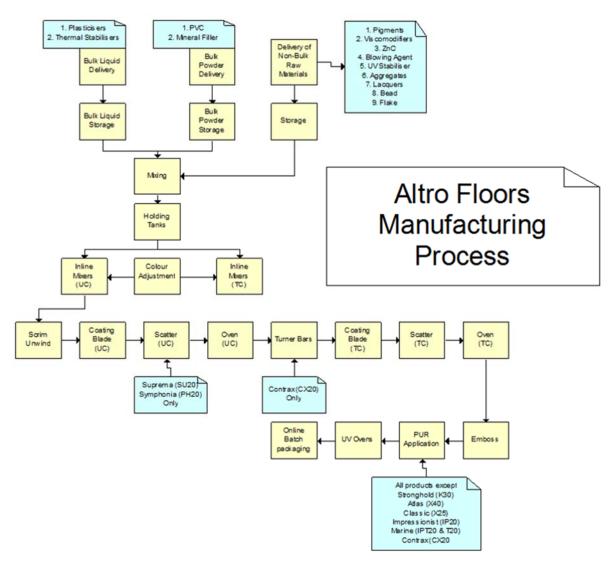
Material/Chemical Input	Mass (%)
Plastisol	90 - 94
Scatter	4 - 8
Scrim	2

### **Manufacturing Process**

Bulk liquids, powders, performance additives and some aggregates are mixed together into a plastisol and placed in a holding tank. The plastisol is then pigmented and passed into inline mixers. The plastisol is then coated onto a scrim and aggregates are scattered onto the surface to aid slip resistance and durability. The product is then cured in an oven, cut into rolls and packaged for dispatch.

### **Process flow diagram**





## **Life Cycle Assessment Calculation Rules**

### **Declared / Functional unit description**

1m² of Altro Classic 25 2.5mm thick Altro standard safety flooring without PUR lacquer. The declared unit represents the Altro ContraX, Altro Classic 25, Altro Marine 20, and Altro Impressionist II products for 2.0 – 2.5mm thicknesses.

#### System boundary

This is a cradle-to-gate EPD, reporting all production life cycle stages (modules A1 to A3) in accordance with EN 15804:2012+A1:2013.

### Data sources, quality and allocation

The supporting LCA study was carried out using BRE LINA v2.0 using manufacturer specific data provided by Altro for the production period of the 12 months of 2017 at the Letchworth site.

The Letchworth site produces other PVC products in addition to the 2.0-2.5mm standard safety flooring without PUR lacquer product range, so allocation was applied to site wide values for packaging, energy, water, non-production waste, and wastewater, on a  $m^2$  of production basis. Production waste was allocated on a percentage mass of production basis. No allocation of raw material inputs was required as total raw material



usage for each product within the product range made over the production period was used. Products within the range were modelled individually for the declared unit of 1m<sup>2</sup>. The Altro Classic 25 product obtains the highest results in all the results categories and it is these results which have been used on this EPD to represent the product range.

Secondary data has been drawn from the BRE LINA database v2.0.31 and the background LCI datasets are based on ecoinvent v3.2.

#### **Cut-off criteria**

No inputs or outputs have been excluded. All raw materials and packaging inputs, plus their transport, process and general energy and water use, production and non-production waste, have been included, except for direct emissions to air, water and soil, which are not measured.

#### **LCA Results**

Results per declared unit (1m<sup>2</sup>) of the 2.5mm thick Altro Classic 25 standard safety flooring without PUR lacquer, for the declared modules can be found in the following tables, and as the product which obtained the highest values in each result category, can be considered to represent the product range.

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts											
			GWP	ODP	AP	EP	POCP	ADPE	ADPF		
			kg CO₂ equiv.	kg CFC 11 equiv.	kg SO <sub>2</sub> equiv.	kg (PO <sub>4</sub> ) <sup>3-</sup> equiv.	kg C₂H₄ equiv.	kg Sb equiv.	MJ, net calorific value.		
	Raw material supply	A1	AGG	AGG	AGG	AGG	AGG	AGG	AGG		
Droduot otago	Transport	A2	AGG	AGG	AGG	AGG	AGG	AGG	AGG		
Product stage	Manufacturing	A3	AGG	AGG	AGG	AGG	AGG	AGG	AGG		
	Total (of product stage)	A1-3	6.97	5.43e-7	0.0338	0.0117	7.16e-3	3.90e-5	149		

GWP = Global Warming Potential;

ODP = Ozone Depletion Potential;

AP = Acidification Potential for Soil and Water;

EP = Eutrophication Potential;

POCP = Formation potential of tropospheric Ozone; ADPE = Abiotic Depletion Potential – Elements; ADPF = Abiotic Depletion Potential – Fossil Fuels.

### LCA Results (continued)

Parameters describing resource use, primary energy											
			PERE	PERM	PERT	PENRE	PENRM	PENRT			
			MJ	MJ	MJ	MJ	MJ	MJ			
	Raw material supply	A1	AGG	AGG	AGG	AGG	AGG	AGG			
Product stage	Transport	A2	AGG	AGG	AGG	AGG	AGG	AGG			
Product stage	Manufacturing	А3	AGG	AGG	AGG	AGG	AGG	AGG			
	Total (of product stage)	A1-3	19.7	1.52e-4	19.7	174	0	174			

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
PERM = Use of renewable primary energy resources used as raw

PERM = Use of renewable primary energy resources used as raw materials;

PENRE = Use of non-renewable primary energy excluding nonrenewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials:



PERT = Total use of renewable primary energy resources;

PENRT = Total use of non-renewable primary energy resource

Parameters describing resource use, secondary materials and fuels, use of water										
			SM	RSF	NRSF	FW				
			kg	MJ net calorific value	MJ net calorific value	m³				
	Raw material supply	A1	AGG	AGG	AGG	AGG				
Due divet etema	Transport	A2	AGG	AGG	AGG	AGG				
Product stage	Manufacturing	A3	AGG	AGG	AGG	AGG				
	Total (of product stage)	A1-3	0	0	0	0.478				

SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.

Other environmental information describing waste categories										
			HWD	RWD						
			kg	kg	kg					
	Raw material supply	A1	AGG	AGG	AGG					
December of the sec	Transport	A2	AGG	AGG	AGG					
Product stage	Manufacturing	A3	AGG	AGG	AGG					
	Total (of product stage)	A1-3	0.324	0.527	2.93e-4					

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed.

## **LCA Results (continued)**

Other environmental information describing output flows – at end of life										
			CRU	MFR	MER	EE				
			kg	kg	kg	MJ per energy carrier				
	Raw material supply	A1	AGG	AGG	AGG	AGG				
Draduet etage	Transport	A2	AGG	AGG	AGG	AGG				
Product stage	Manufacturing	A3	AGG	AGG	AGG	AGG				
	Total (of product stage)	A1-3	0	0.168	0.0945	0				

CRU = Components for reuse; MFR = Materials for recycling;

MER = Materials for energy recovery; EE = Exported energy.



### References

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