



# GreenCoat<sup>®</sup>

- color coated steel sheets and coils

*Environmental Product Declaration (EPD), ISO 14025*  
*February, 2018*

## GENERAL INFORMATION

Owner of environmental product declaration	SSAB Europe Oy, Harvialantie 420, FIN-13300 Hämeenlinna, Finland
Product	GreenCoat® color coated steel sheets and coils
Producer	SSAB Europe
Production site	SSAB's Hämeenlinna and Kankaanpää sites, Finland and Finspång site, Sweden
Declared unit	1 kg of steel structures
Date declaration was issued	November 28, 2014*
Valid until	November 28, 2019
This environmental product declaration includes several different GreenCoat® color coated steel sheets and coils, and the results of environmental indicators declared in this declaration are average values for these products. The information in this environmental product declaration is based on production data for 2012. CEN standard EN 15804 serves as the core PCR.	
Independent verification of the declaration, according to EN ISO 14025:2010	
<input checked="" type="checkbox"/> External <input type="checkbox"/> Internal	
Third party verifier	
	
Thomas Andersson, Insinööri/toimisto Ecobio Oy	

This environmental product declaration provides information about the products referred to. The declaration is based in the requirements of standards EN 15804+A1:2014, ISO 14025:2010 and ISO 14040:2006. An environmental product declaration contains information about the raw materials, energy consumption, emissions originating during production, and about product recyclability. Unless otherwise stated, the product information is based on steel manufactured at SSAB's steel mill in Raabe (Finland).

SSAB specializes in premium steel and steel construction. SSAB's corporate responsibility is defined in the company's vision, strategy, values Code of Ethics, policies and management system. SSAB's production sites operate in conformance with certified ISO 14001 environmental management and ISO 9001 quality management systems. SSAB aims at continuous improvement and energy efficiency in all operations and customer solutions.

The most recent information about SSAB's products and services, product safety and use and environmental and corporate social responsibility can be found on the company's website at [www.ssab.com](http://www.ssab.com).

\*Updated in February 2018 regarding the product portfolio, production places and more detailed information about the content of substances.

## PRODUCT

### TECHNICAL INFORMATION AND APPLICATION

GreenCoat® color coated steel products are used in the building industry, electrical, electronics and engineering industries.

GreenCoat® products are highly resistant to corrosion, UV radiation as well as scratches. They provide builders with a light-weight material that is easy to work with even down to -15 °C.

Most of our GreenCoat® products feature a Bio-based Technology (BT) coating with a substantial portion of the traditional fossil fuel replaced by Swedish rapeseed oil. This patented solution reduces the environmental footprint of GreenCoat® products. With its color coating, full recyclability, compliance with REACH regulations and numerous environmental certifications, GreenCoat® stands at the forefront of sustainable building solutions.

GreenCoat® products are available in a wide variety of attractive colors and finishes. Typical thickness range is from 0.45mm to 1.5mm, but availability depends on product and width in concern. GreenCoat® color coated products are all manufactured according to EN10169.

#### Color coated steel roofing products

- **GreenCoat Pural BT** - extremely durable product with very scratch resistant coating for roofing applications.
- **GreenCoat Pro BT** - highly durable roofing product with optimized properties for tiles and profiles
- **GreenCoat PLX Pro BT, GreenCoat FAP Pro BT** - specially developed high-end products for tinsmith applications.
- **GreenCoat PLX Legacy** - tinsmith product with special surface to be painted directly after installation.
- **GreenCoat Mica BT** - roofing product with exclusive, glittery surface.
- **GreenCoat Crown BT** - roofing product with optimized properties for tiles and profiles.
- **GreenCoat Purex** - A modern product with optimized properties for tile profiles and modular roofing
- **GreenCoat Cool** - roofing product with heat reflecting properties.
- **Rough Matt Polyester** - roofing product with rough appearance and good profiling properties.
- **Polyester** - standard product for roofing, façade and walls.

#### Color coated steel façade products

- **GreenCoat Hiarc, GreenCoat Hiarc Max** - extremely durable product for high quality façades.
- **GreenCoat Hiarc Cool** - façade product with heat reflecting properties.
- **GreenCoat Anti-Graffiti BT** - a product from which graffiti is easy to remove.
- **GreenCoat Pural Farm BT** - highly durable product for agricultural buildings.

#### Color coated steel rainwater system products

- **GreenCoat RWS** - double sided, high quality product for rainwater systems.

#### Color coated steel indoor products

- **GreenCoat FoodSafe BT** - product for food handling environments.
- **Polyester Indoor** - product with wide range of special colors and glosses for indoor applications.
- **Structured Polyester** - product with excellent wear resistance for metal fabrication industry.
- **Energy Interior** - product with heat reflective coating for interior walls and ceilings.
- **Epoxy** - product with excellent adhesive bonding properties used for sandwich panels for indoor applications.
- **Laminate FoodSafe** - product with excellent scratch resistance properties for food safe industry.

### PRODUCT COMPOSITION

#### Steel characteristics

The base material in color coated steel consists of steel, which is typically coated with a thin zinc layer. Steel is an alloy of mainly iron and carbon, with small amounts of other elements used as alloying elements. These elements improve the chemical and physical properties of steel such as strength, formability and weldability. The steel is chosen with properties that will best suit the end product. For structural steel applications this follows standardized mechanical properties according to EN 10346. For applications where the steel should be formable in a demanding way or the product should be worked with by tinsmiths, extra formable steels are used.

#### Zinc coating

The zinc coating, Z100-350 g/m<sup>2</sup> is lead-free and it protects the steel from corrosion in two ways. It is a protective layer keeping oxygen and water away from the steel, but it also acts as a cathodic protection. This means that at cut edges or in case of damages through the zinc coating, the zinc will sacrifice itself and react to form protective compounds and block further corrosion processes. The zinc coating covers the steels on both sides.

#### Pre-treatment and color coatings

The pre-treatment layer is applied to further improve the corrosion resistance, but also to give a good adhesion to the coating layer. The primer layer is used for corrosion protection with corrosion protective additives and also acts to give a good adhesion to the top coat. The top coat type is chosen to best fit the purpose of the application. It can be chosen to serve in different environments and also offer different appearances.

TABLE 1. EXAMPLE OF THE GREENCOAT HIARC COMPOSITION.

Material	Content (%) of total product weight	Name of ingredient	Maximum content % (W/W)	Content (W/W) of total product weight	CAS number
Hot-dip galvanized steel thickness: 0.5mm	98.2	Steel	98.2		
		Iron (Fe)		88.3	7439-89-6
		Manganese (Mn)	1.70	1.7	7439-96-5
		Silicon (Si)	0.6	0.6	7440-21-3
		Carbon (C)	0.2	0.2	7440-44-0
		Zinc layer			
		> 99% Zinc (Zn)	6.2	6.1	7440-66-6
Coatings:	1.8	Other elements	100	3	

**Remarks**

Physical state: solid  
 Odor: odorless  
 Color: metallic grey  
 Boiling point: 2750°C  
 Melting pint: 1450–1520°C  
 Steel density: 7850 kg/m<sup>3</sup>

More detailed information about the composition of different steels is available from national and international standards as well as from SSAB’s website, at [www.ssab.com](http://www.ssab.com). The values provided are based on European Standards EN 10219-1, EN 10025-2, EN 10025-3, EN 10025-4, EN 10025-6, EN 10130, EN 10268, EN10346 and EN 10169 requirements on maximum concentrations.

Measurements are done to a level of 0.02 µg/g (0.00000002%). Concentrations below this degree of measuring accuracy cannot be determined. The concentrations of chemical elements – such as zirconium (Zr), magnesium (Mg), cobalt (Co), arsenic (As), cadmium (Cd), zinc (Z), lead (Pb), antimony (Sb) and tin (Sn) - appearing as impurities in steel are very small. None of the constituent substances within the whole product exceeds the limits of the EU’s chemical regulation (REACH) and recommendations phasing out hazardous substances in the building sector such as the requirements of BASTA (2014:A2) and Byggarubedömningen (Building Material Assessment, BVB, 2013), Swedish Building Product Declarations (Föreningen för Byggarudeklarationer, BPD 3, 2007) and the priority list in Norway. No product contains substances restricted under REACH or included on the candidate list (SVHC).

This is also the layer that gives the final product its color.

The reverse side of the sheet is typically painted with a two-layer grey backside coating which further enhances the corrosion resistance of the product. The reverse side coating is optimized to give a good adhesion in adhesive bonded or foam filled sandwich panels. If particular technical or aesthetic requirements are set for the reverse side, the coating can be selected accordingly. In reverse side our GreenCoat® steel products are marked with a text that identifies GreenCoat® and SSAB as the original manufacturer.

All SSAB color coated products are chromate-free. Table 1 shows a summary of the composition of GreenCoat Hiarc in normal production (excluding packaging materials). The exact composition of steel varies according to material standards and customer requirements. This information given is based on cold rolled steel produced at SSAB’s sites in Finland.

Typical chemical content of SSAB color coatings are presented in table 4. In table the content is informed if it is minimum 0.1% from products weight. The weight has calculated from color coated 0.45 mm steel with Z100.

**COMPLIANCE WITH CHEMICAL LEGISLATION**

SSAB actively tracks and anticipates future changes in environmental, safety and chemical legislation and complies with valid EU chemical regulations, such as REACH

(1907/2006/EC) and CLP (1272/2008/EC). Communication and cooperation throughout the supply chain plays an important role and SSAB requires full REACH compliance from its sub-contractors. SSAB tracks the list of Substances of Very High Concern (SVHC) and other legislative requirements to ensure products meet legal and customer requirements. In addition, SSAB observes and complies with the requests and recommendations of many customers to withdraw products containing hazardous substances in the customer sector.

Where the concentration % (w/w) in a product of substances restricted under the EU’s chemical regulation (REACH) and recommendations phasing out hazardous substances in the building sector such as the requirements of BASTA (2014:A2) and Byggarubedömningen (Building Material Assessment, BVB, 2013) in Sweden and the priority list in Norway exceeds or corresponds to the limits referred to above, this is stated in Table 1. The guidelines for Swedish building product declarations (Föreningen för Byggarudeklarationer, BVD 3, 2007) have been taken into account with regard to the substances disclosed. Steel contains very small amounts of impurities originating from natural raw materials and not added during the steel production process. The amount of impurities in the steels is minimal and, based on knowledge of the toxicity of these substances and their metallurgical bond in the steel matrix, does not pose a risk to the environment or human health.



**GREENCOAT® IN AWARD-WINNING ARCHITECTURE**

The Skýli trekking cabin was shortlisted for the World Architecture Festival 2017 and received huge global interest due to its appearance and sustainability angle. Utopia Arkitekter (Sweden)

**TABLE 2: OCCUPATIONAL EXPOSURE LIMITS VALID IN FINLAND.**

Element	Occupational exposure limits (OEL), 8 h (mg/m <sup>3</sup> )
Iron oxide, vapor, (Fe)	5
Zinc oxide, vapor	5
Chromium (II, III) alloys*	0.5

\* the product is chromate-free.

## PRODUCTION

### PRODUCTION SITES

GreenCoat® color coated steel sheets and coils in accordance with this environmental product declaration are manufactured at SSAB's Hämeenlinna and Kankaanpää sites in Finland, and the Finspång site in Sweden. Cold rolled and metal coated steel products are used as the raw material for SSAB's color coated steel products and are made at SSAB's Hämeenlinna site. Hot rolled steel coils usually made at SSAB's steel mill in Raahе are used as the raw material for cold rolled and metal coated steel. Production of the hot rolled steel used as the raw material is based on the use of iron ore as a raw material. However, an average of 20% scrap steel is used in the steel production as well. The use of raw materials and energy has been optimized in steel production.

When steel scrap is used instead of virgin raw materials in iron production, the carbon dioxide emissions originating in steel production decrease accordingly. Steelmaking at SSAB Raahе production uses scrap material from SSAB's own production processes and material sourced from the steel scrap market. Once steel has been made, it can be recycled endlessly without weakening its properties.

Most of the energy used in ore-based steel production comes from coal, which is used as a reducing agent in ironmaking. The mineral products formed in iron and steel production processes are recycled as industrial raw material or material to replace virgin resources. A high percentage of the dust originating in various processes is returned to the process to reduce waste and improve material efficiency.

### LABELING AND PACKAGING

GreenCoat® products are labeled so as to be easily and permanently identifiable and traceable. Labeling complies with standards EN 10021 and EN 10204. The packaging and protection of our steel products is usually determined when ordering. Strap bands, wood props, corner protection and other accessories supporting packaging are used as appropriate and according to customer requirements. Paperboard or polyethylene film is usually used as the packaging material for cut lengths. The bundles including wooden props are fastened with metal bands. Coils are delivered fastened without a base, protected by paperboard, wrapping paper or corrugated plastic and plastic end rings, metallic corner protection and binding straps.

### SOURCING AND TRANSPORTATION

The general terms and conditions of all sourcing contracts require compliance with SSAB's Supplier Sustainability Policy. Ethical values, environmental concerns and energy efficiency are weighed up when choosing suppliers. As regards the main raw materials used in steel production at Raahе (Finland), limestone is shipped from Sweden, coal from North America and Australia, iron ore pellets are shipped from Sweden or come by rail from Russia. Finished products are transported by sea, road or rail combined. The company's own logistics unit is responsible for most of SSAB's transportation of raw materials and products.

SSAB's environmental concerns in respect of logistics are managed through a certified environmental management system. The aim is to increase the share of logistics contracts with partners who have signed up for energy efficiency agreements in the logistics and transport sector. Around 85% of SSAB's land transportations per tonne of products are carried by a partner signatory to energy efficiency agreements. Logistics companies outside an energy efficiency agreement are regularly encouraged to sign up to one. SSAB's international partners have certified environmental management systems. Logistics aims to optimize transport and maximize payloads and to combine transport as efficiently as possible.

## RECYCLING AND WASTE PROCESSING

Steel is a fully-recyclable material and steel scrap has a strong market position: steel recovered from structures and end-products at the end of their lifecycle is efficiently re-used to make new steel.

No hazardous waste is formed from the end-products and steel does not harm the environment. According to the European Waste Catalogue, the waste code for steel products manufactured by SSAB after their useful life is 17 04 05 (iron and steel). Most of packaging materials for steel products can be recycled or reused.

### INFORMATION ABOUT SAFE USE

Steel poses no hazards to the environment in the forms supplied. Some steel grades contain alloying elements such

as manganese, chromium, nickel, copper and silicon. None of these substances is released under normal or reasonably foreseeable conditions of use.

Dust and vapors may form when steel is melted, welded, cut or ground (or heated to very high temperatures). Longterm exposure to high dust and vapor concentrations may affect the health, especially the lungs. The composition of dust and vapor depends on the steel grade and methods employed.

Welding must be left to trained people. Personal protective equipment must be used and sufficient ventilation must be ensured in compliance with safety legislation. Instructions on the welding of metals and metal alloys can be found on the website of, for example, the European Steel Association [www.eurofer.org](http://www.eurofer.org).

Steel handling does not endanger people or the environment and there are no specific exposure limits in place for this reason. Neither have any first aid measures, measures in the event of fire or unintentional emission, or measures as regards the handling and storage of steel been specified. However, some occupational exposure limits have been specified for steel alloys and compounds. Exposure is minor when total dust concentration is below 5 mg/m<sup>3</sup>. Table 2 shows the occupational exposure limits valid in Finland.

Normal precautions should be taken to avoid physical inju-

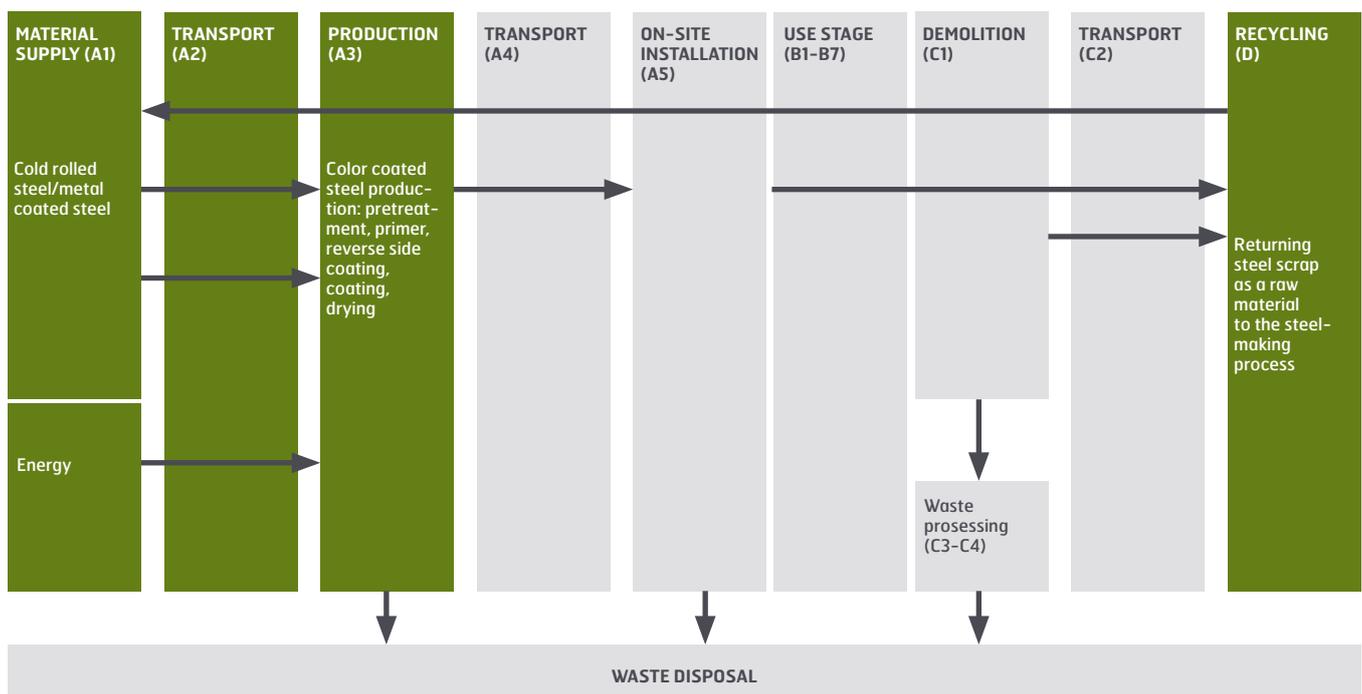
ries caused mainly by heavy products or sharp edges. Personal protective equipment such as special gloves and eye protection must be worn.

Color coated steel is not classified as dangerous under the EU's chemical regulation (REACH) and so Safety Data Sheet or hazardous packaging, marking or transport rules and regulations are not required.

#### SAFETY

- Always wear gloves and protective clothing when handling steel products.
- Be careful of sharp edges and corners.
- Always use official lifting equipment when moving steel products.
- Never use binding straps to lift a product.
- Straps under tension may cause injury when cut and the outer ring of a coil may rebound outwards.
- Never go under steel products when they are being moved.
- Make sure the securing straps are sufficiently strong and firmly attached.
- Always follow the industrial safety provisions in force and find out whether the installation site is subject to any particular requirements regarding safety before beginning installation work.

PICTURE 1: SYSTEM BOUNDARIES OF LIFECYCLE ASSESSMENT.



The chart describes the lifecycle stages of steel structures. Lifecycle assessment excludes the lifecycle stages in a grey background.



GreenCoat® guarantees are based on over 40 years of experience at SSAB's accredited outdoor testing sites to guarantee a longer product lifetime (here on the west coast of Sweden).

## ENVIRONMENTAL PROFILE

This environmental product declaration covers the lifecycle of the product from cradle to factory gate, including an end-of-life recycling rate of 90 % for steel, i.e. the external lifecycle impacts ("cradle to gate with options"). This means that a burden is allocated to the steel scrap that is used as an input to the steel making process, and a credit for the End-of-Life (EoL) steel that is recycled. The lifecycle assessment in the environmental production declaration does not include information in the building stage, the use and operational stage nor the demolition stage.

The impact of recycling has been calculated based on the World Steel Association's LCA model so that the compensation is the difference between the primary and secondary production of a steel slab perceived with the acquisition of the recycling process. 1.092 kg of recycled steel is needed to produce 1 kg of steel in secondary production. An average of 20 %

steel scrap is used in steel production at the Raabe steel mill. The benefits and loads of the steel scrap used by a steel mill are accounted inside the World Steel Association's LCA model boundary. To avoid double calculation, these are not reported again separately as use of secondary material.

The lifecycle benefits of the by-products originating in steel production have been allocated to steel production in accordance with World Steel Association's LCA model. Allocation of by-products is calculated as reducing environmental impacts in the production of hot rolled steel by 5-10 %, and an average of 8 %.

All values apply to 1 kg of color coated steel produced at SSAB's Hämeenlinna site. Table 3 below shows the environmental indicators based on the lifecycle assessment of SSAB's color coated steel sheets and coils.

**TABLE 3: ENVIRONMENTAL PROFILE OF GREENCOAT COLOR COATED STEELS.**

Parameter	Unit	Product stage	Benefits and loads beyond the system boundary
		Raw material supply and manufacture of steel product	Re-use, recovery, recycling potential
<b>Parameters describing environmental impacts</b>			
GWP Global warming potential	kg CO <sub>2</sub> equiv.	2.81	-1.32
ODP Depletion potential of the stratospheric ozone layer	kg CFC-11 equiv	1.01x10 <sup>-8</sup>	4.14 x10 <sup>-8</sup>
AP Acidification potential of soil and water sources	kg SO <sub>2</sub> equiv	6.62 x10 <sup>-3</sup>	-2.07 x10 <sup>-3</sup>
EP Eutrophication potential	kg (PO <sub>4</sub> ) <sup>-3</sup> equiv	6.74 x10 <sup>-4</sup>	-9.16 x10 <sup>-5</sup>
POCP Formation potential of tropospheric ozone	kg ethene equiv	6.29 x10 <sup>-4</sup>	-6.52 x10 <sup>-4</sup>
ADP-elements Abiotic depletion potential	kg SB equiv	2.01 x10 <sup>-4</sup>	-1.32 x10 <sup>-5</sup>
ADP-fossil fuels Abiotic depletion potential	MJ, net calorific value	30.2	-13.9
<b>Parameters describing resource use and primary energy</b>			
Use of renewable primary energy used as energy carrier	MJ, net calorific value	1.28	0.82
Use of renewable primary energy resources used as raw material	MJ, net calorific value	0	0
Total use of renewable primary energy resources	MJ, net calorific value	1.28	0.82
Use of non-renewable primary energy used as energy carrier	MJ, net calorific value	20.2	-1.1
Use of non-renewable primary energy used as raw material	MJ, net calorific value	11.6	-11.3
Total use of non-renewable primary energy resources	MJ, net calorific value	31.8	-12.4
Use of secondary material	kg	-	-
Use of renewable secondary fuels	MJ, net calorific value	-	-
Use of non-renewable secondary fuels	MJ, net calorific value	-	-
Net use of fresh water	m <sup>3</sup>	1.94 x10 <sup>-2</sup>	-3.40 x10 <sup>-3</sup>
<b>Other environmental information describing waste categories</b>			
Hazardous waste disposed	kg	0.12	0.02
Non-hazardous waste disposed	kg	4.18 x10 <sup>-4</sup>	3.70 x10 <sup>-2</sup>
Radioactive waste disposed	kg	6.83 x10 <sup>-4</sup>	4.44 x10 <sup>-4</sup>
<b>Other environmental information describing output flows</b>			
Parameter	Unit	Product stage total	
Components for re-use	kg	-	
Materials for recycling	kg	-	
Materials for energy recovery	kg	-	
Exported energy	MJ per energy carrier	0.04	



**TABLE 4: TYPICAL CHEMICAL CONTENT OF COLOR COATINGS (=cured paint coatings or glued laminate foil). WEIGHTS ARE CALCULATED WITH 0.45 MM STEEL WITH ZINC COATING Z100.**

Product	Type of the substance	Substance content	Min [wt%]	Max [wt%]
GreenCoat Pural BT, GreenCoat TSP Pural BT, GreenCoat FAP Pural BT	Organic binders	Polyester binders (saturated)	0.4	1.2
		Polyurethane binders	0.2	0.4
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
		Natural oil alkyd esters (BT)	Yes	Yes
	Filler materials	Titanium dioxide	0.0	0.7
		Other pigments	0.1	0.3
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0
GreenCoat Pro BT, GreenCoat PLX Pro BT, GreenCoat FAP Pro BT	Organic binders	Polyester binders (saturated)	0.3	1.5
		Other organic binders	0.0	0.4
		Epoxy*	0.1	0.1
		Natural oil alkyd esters (BT)	Yes	Yes
	Filler materials	Titanium dioxide	0.0	0.4
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.1
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0
	GreenCoat Crown BT	Organic binders	Polyester binders (saturated)	0.4
Polyurethane binders			0.0	0.1
Epoxy*			0.0	0.4
Other organic binders			0.0	0.1
Natural oil alkyd esters (BT)			Yes	Yes
Filler materials		Titanium dioxide	0.0	0.3
		Other pigments	0.0	0.3
		Organic fillers	0.0	0.1
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.1
Nanoparticles			0.0	0.0
GreenCoat Mica BT	Organic binders	Polyester binders (saturated)	0.3	1.2
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
		Natural oil alkyd esters (BT)	Yes	Yes
	Filler materials	Titanium dioxide	0.0	0.4
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.1
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0

Product	Type of the substance	Substance content	Min [wt%]	Max [wt%]
GreenCoat Purex	Binding agent	Polyester binders	0.0	0.7
		Polyurethane binders	0.0	0.2
		Other organic binders	0.0	0.0
		Natural oil diluents (BT)	No	No
	Filler materials	Titanium dioxide	0.0	0.2
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.1
		Inorganic fillers	0.0	0.0
		Organic additives	0.0	0.1
	Nanoparticles	No	No	
GreenCoat PLX Legacy, GreenCoat TSP Legacy	Organic binders	Polyester binders (saturated)	0.0	0.9
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.2
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.1
		Organic additives	0.0	0.0
	Nanoparticles	0.0	0.0	
	GreenCoat Cool	Organic binders	Polyester binders (saturated)	0.6
Epoxy*			0.0	0.4
Other organic binders			0.0	0.1
Filler materials		Titanium dioxide	0.0	0.6
		Other pigments	0.0	0.4
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.1
		Organic additives	0.0	0.0
Nanoparticles		0.0	0.0	
GreenCoat Hiarc		Organic binders	PVDF	0.3
	Acrylic binder		0.2	0.3
	Epoxy*		0.0	0.4
	Other organic binders		0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.5
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles	0.0	0.0	
GreenCoat Hiarc Max	Organic binders	PVDF	0.2	1.5
		Acrylic binder	0.2	0.3
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.5
		Other pigments	0.0	0.2
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles	0.0	0.0	

Product	Type of the substance	Substance content	Min [wt%]	Max [wt%]
GreenCoat Hiarc Cool	Organic binders	Polyester binders (saturated)	0.5	1.0
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.1	0.5
		Other pigments	0.0	0.2
		Organic fillers	0.0	0.1
		Inorganic fillers	0.0	0.1
		Organic additives	0.0	0.1
	Nanoparticles		0.0	0.0
	GreenCoat Anti-Graffiti BT	Organic binders	Polyester binders (saturated)	0.0
Epoxy*			0.0	0.4
Other organic binders			0.0	1.0
Natural oil alkyd esters (BT)			Yes	Yes
Filler materials		Titanium dioxide	0.0	0.2
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.1
		Organic additives	0.0	0.0
Nanoparticles			0.0	0.0
GreenCoat Pural Farm BT	Organic binders	Polyester binders (saturated)	0.4	0.9
		Polyurethane binders	0.2	0.4
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
		Natural oil alkyd esters (BT)	Yes	Yes
	Filler materials	Titanium dioxide	0.0	0.6
		Other pigments	0.1	0.3
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
Nanoparticles		0.0	0.0	
GreenCoat RWS	Organic binders	Polyester binders (saturated)	1.4	2.4
		Other organic binders	0.0	0.0
	Filler materials	Titanium dioxide	0.1	0.6
		Other pigments	0.1	0.2
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0
Rough Matt Polyester	Organic binders	Polyester binders (saturated)	0.6	1.2
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.5
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0

Product	Type of the substance	Substance content	Min [wt%]	Max [wt%]
Polyester	Organic binders	Polyester binders (saturated)	0.6	1.2
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.5
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0
	GreenCoat FoodSafe BT	Organic binders	Polyester binders (saturated)	0.0
Epoxy*			0.0	0.4
Other organic binders			0.0	0.1
Natural oil alkyd esters (BT)			Yes	Yes
Filler materials		Titanium dioxide	0.0	0.6
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.1
		Organic additives	0.0	0.0
Nanoparticles			0.0	0.0
Polyester Indoor	Organic binders	Polyester binders (saturated)	0.6	1.2
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.5
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0
	Structured Polyester	Organic binders	Polyester binders (saturated)	0.0
Epoxy*			0.0	0.4
Other organic binders			0.0	0.1
Filler materials		Titanium dioxide	0.0	0.6
		Other pigments	0.0	0.0
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.1
		Organic additives	0.0	0.0
Nanoparticles			0.0	0.0
Epoxy		Organic binders	Epoxy*	0.0
	Other organic binders		0.0	0.2
	Filler materials	Titanium dioxide	0.0	0.3
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.2
		Organic additives	0.0	0.0
	Nanoparticles		0.0	0.0

Product	Type of the substance	Substance content	Min [wt%]	Max [wt%]
Energy Interior	Organic binders	Polyester binders (saturated)	0.1	0.5
		Polyurethane binders	0.0	0.1
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.2
		Other pigments	0.1	0.2
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.1
	Nanoparticles		0.0	0.0
	Laminate FoodSafe	PVC laminate film	PVC	3.4
Other additives			1.0	1.3
Organic binders		Vinyl resin	0.2	0.6
		Acrylic binder	0.0	0.0
		Polyester binders (saturated)	0.0	0.0
		Epoxy*	0.0	0.4
Filler materials		Other organic binders	0.0	0.1
		Titanium dioxide	0.0	0.2
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
Inorganic fillers	0.0	0.1		
Organic additives	0.0	0.0		
Nova	Organic binders	Polyester binders (saturated)	0.8	1.7
		Epoxy*	0.0	0.4
		Other organic binders	0.0	0.1
	Filler materials	Titanium dioxide	0.0	0.3
		Other pigments	0.0	0.2
		Organic fillers	0.0	0.0
		Inorganic fillers	0.0	0.4
	Organic additives	0.0	0.0	
	Nanoparticles		0.0	0.0
	P200	Organic binders	PVC	4.0
Plasticizers			1.8	2.5
Epoxy*			0.0	0.4
Other organic binders			0.0	0.1
Filler materials		Titanium dioxide	1.1	1.4
		Other pigments	0.0	0.1
		Organic fillers	0.0	0.0
		Inorganic fillers	0.1	0.3
Organic additives		0.0	0.0	
Nanoparticles			0.0	0.0

\* Substance appears in the reverse side coating.

## About SSAB

SSAB has manufactured products for the building industry for more than 50 years and is the pioneer and innovator of creating sustainable color coated products offering Swedish rapeseed oil in the coating.

SSAB is a Nordic and US-based steel company offering value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has production facilities in Sweden, Finland and the US and employees in over 50 countries. [www.ssab.com](http://www.ssab.com)

*SSAB and its subsidiaries have taken care to ensure that the content of this publication is accurate. However, we do not accept responsibility or liability for errors or information that is found to be misleading. Suggestions for, or descriptions of, the end use or application of products or methods of working are for information only. SSAB and its subsidiaries accept no liability in respect thereof.*

*No part of this publication may be reprinted without explicit written permission by SSAB.*

*This folder has been printed by a Nordic Swan Ecolabel certified printing company. This refers to a company that fulfils strict environmental requirements and has been granted a Nordic Ecolabel licence.*



Nordic Ecolabel Printed Matter Licence No 3041 0027

### SSAB

SE-781 84 Borlänge  
Sweden

T +46 243 700 00  
F +46 243 720 00  
[greencoat@ssab.com](mailto:greencoat@ssab.com)

### SSAB Europe Oy

Harvialantie 420  
FIN-13300 Hämeenlinna  
Finland

T +358 20 59 11  
F +358 20 59 25080  
[greencoat@ssab.com](mailto:greencoat@ssab.com)

[ssab.com/GreenCoat](http://ssab.com/GreenCoat)

Follow GreenCoat® on   

# SSAB