

Kaisa Ahvonen

Product Manager, Color coated steels
SSAB Europe



Kaisa Ahvonen

Product Manager, Color coated products



► Education

- 1994-2000 Helsinki University of Technology
- 1998 Studies in Chalmers University of Technology, Gothenburg, Sweden

► Career in SSAB

- 2000-07 Product development engineer, Color Coated products
- 2007-08 Development Manager, Color Coated products
- 2008-10 Product Development Manager, Color Coated products
- 2010-15 Portfolio Manager, Cold Rolled, Metal Coated and Color Coated products
- 2015-16 Product portfolio Manager, Color Coated products
- 2016-... Product Manager, Color coated steels

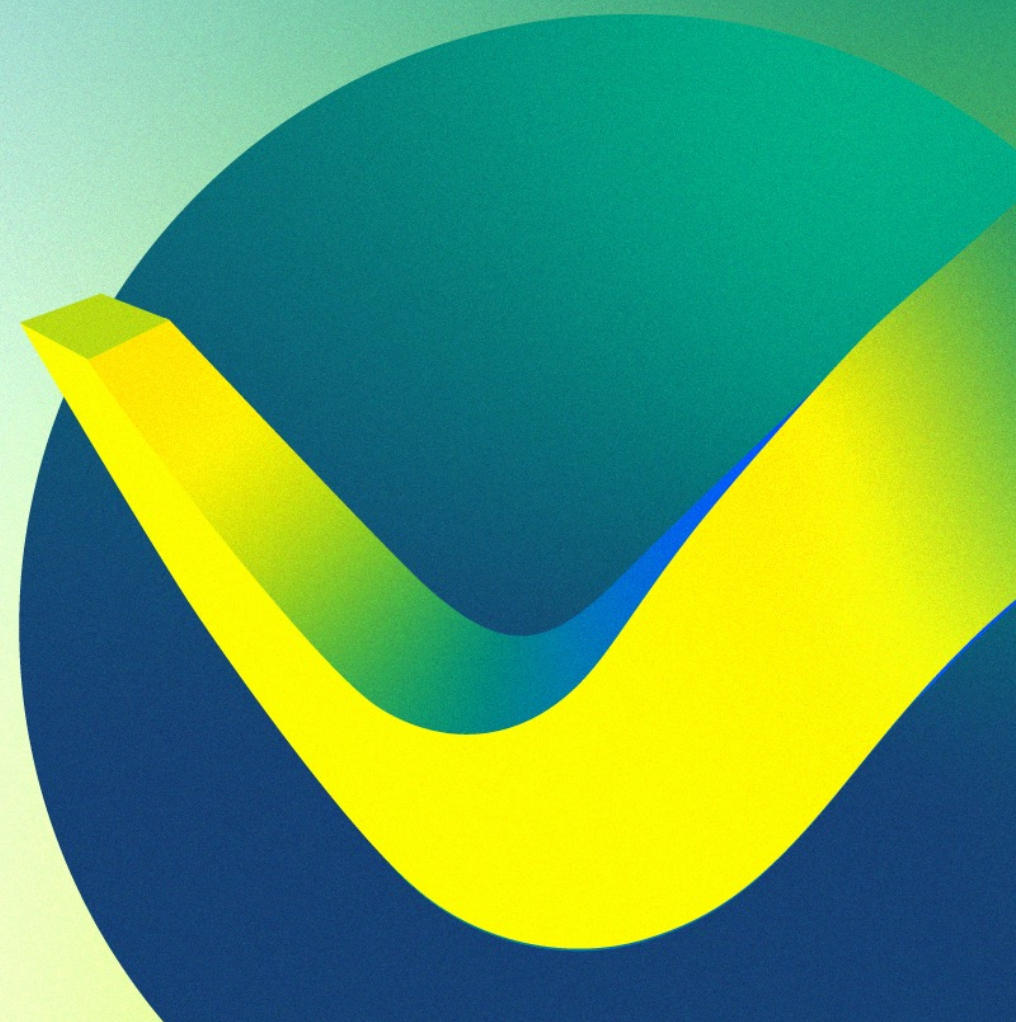


Meeting the requirements of the building industry with GreenCoat®

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Product Manager, Color coated steels

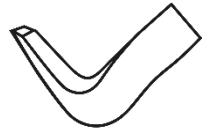
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Content



- ▶ Sustainability in the building industry
- ▶ GreenCoat® portfolio for the building industry
- ▶ Towards fossil free GreenCoat® portfolio



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SUSTAINABILITY IN THE BUILDING INDUSTRY

Sustainability - license to operate in the building industry



- ▶ Construction accounts 39%* of global CO2 emissions.
- ▶ Major emission reductions are expected.
 - European Green Deal
- ▶ The buildings and construction sector is not on track to achieve targets.
- ▶ Decarbonisation needs to be accelerated.
- ▶ A whole-life cycle approach is needed.

*Source: Global Alliance for Buildings and Construction



Construction legislation in Nordics ahead of EU's goals



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► Sweden

- climate declaration for the buildings 1st Jan 2022
- Zero net greenhouse gas emissions by 2045 at the latest

► Denmark

- new guidelines for new buildings 1st Jan 2023
- greenhouse gas emissions reduced 70% by 2030

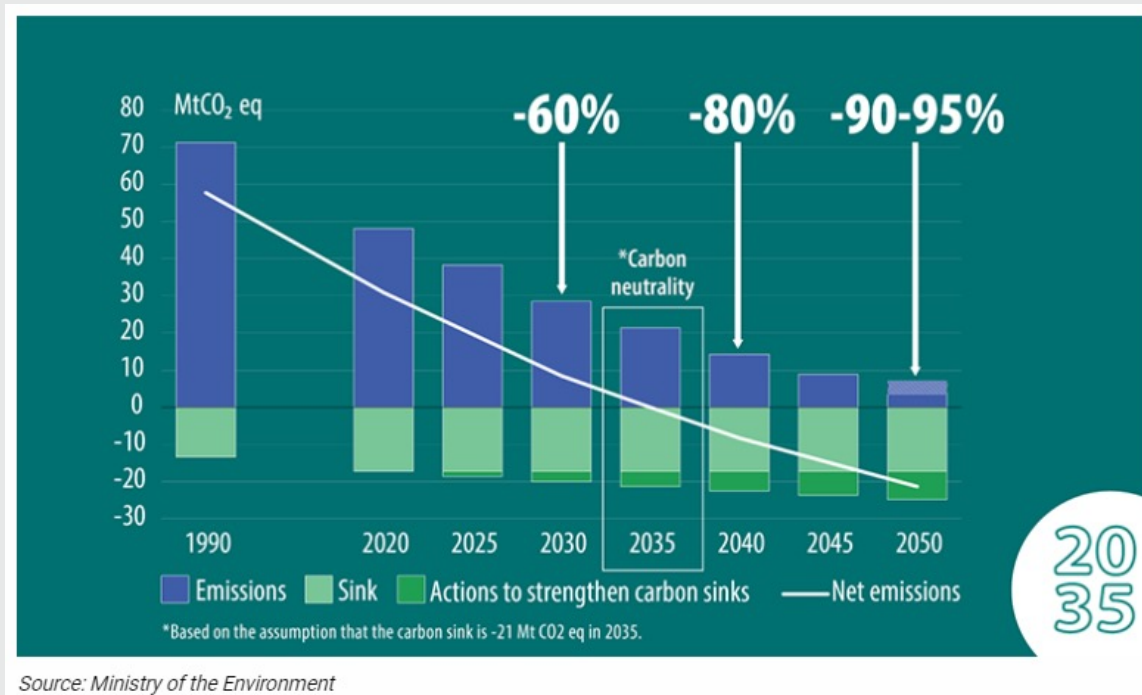
► Finland

- new building legislation approved, valid from 1st Jan 2025
- aims to be climate neutral in 2035

► Norway

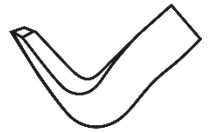
- proposal of updating the legislation within 2024
- greenhouse gas emissions reduced 50% by 2030

Source: Boverket, Rakennustieto, Bolig- og Planstyrelsen & climate-laws.org



What does this mean for GreenCoat® color coated steels?

- ▶ Demand will increase
- ▶ Continue with the sustainability targets
 - Reducing carbon emissions from the whole raw material chain.
 - Further developing the durability and lifetime.
 - Sustainable chemicals as alternatives.
- ▶ Further developed EPDs.



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GREENCOAT®
COLORFUL STEEL

EPD®

Steel production

Manufacturing

Applications
(use-reuse-repair)

Steel recycling

GreenCoat®
– color coated steel sheets and coils

Environmental Product Declaration (EPD)
In accordance with ISO 14025 and EN 15804+A1

S-P-01922, version 1.1
UNEP 412
Programme: The International EPD® System, www.environdec.com
Programme operator: EPD International AB
Published: 2020-03-31
Revised: 2021-02-26
Valid until: 2025-03-30

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GREENCOAT® PORTFOLIO FOR BUILDING INDUSTRY

GreenCoat® product portfolio today



Tinsmith products

Products with strict demands on formability, functionality and appearance.

GreenCoat PLX/TSP Pural BT
GreenCoat PLX Pro BT
GreenCoat PLX/TSP Legacy



Profiled and standing seam sheets

Products which can be well roll formed and have long life cycle. Different appearances available.

GreenCoat Pural BT
GreenCoat Pro BT
GreenCoat Mica BT
GreenCoat Crown BT
GreenCoat Cool



Modular roofing tiles

Product needing besides high durability, excellent batch-to-batch repeatability.

GreenCoat Crown BT



Sandwich panels and cassettes

Products with excellent durability & large range of colors.

GreenCoat Hiarc
GreenCoat Hiarc Max
GreenCoat Pural BT in limited colors



Rain water systems

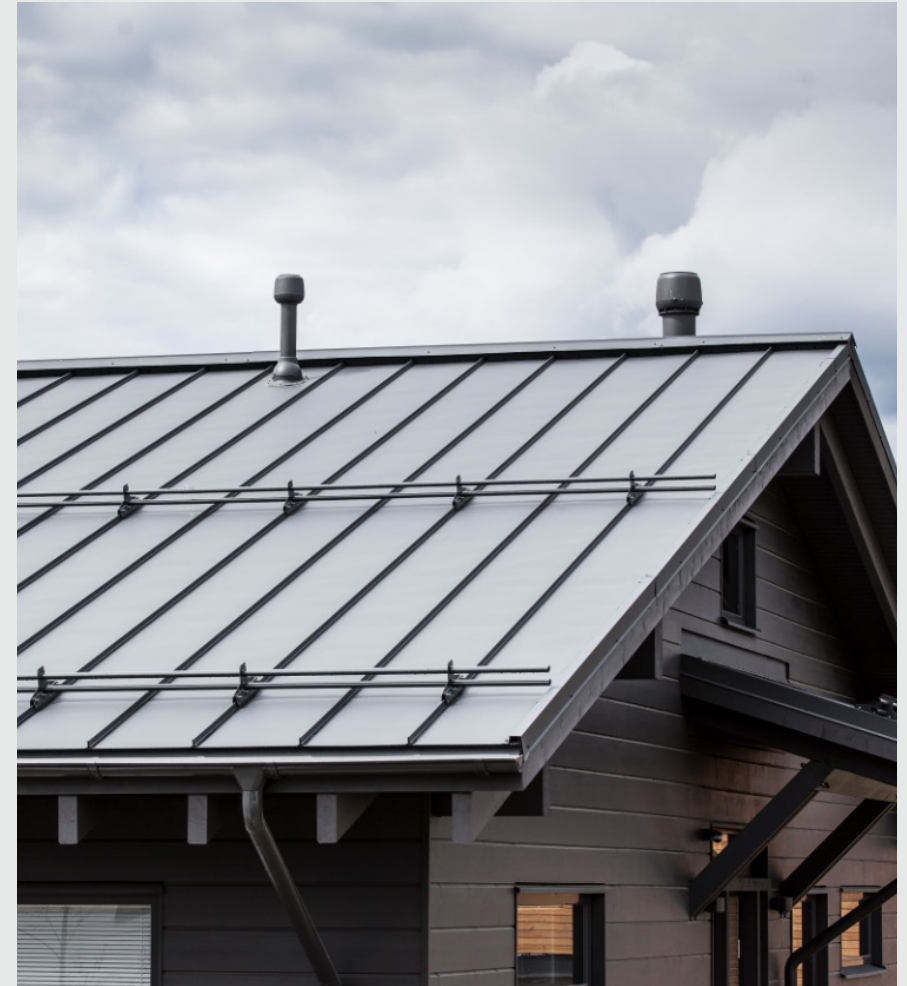
Products suitable for roll forming and deep drawing, with excellent corrosion resistance in the end application.

GreenCoat RWS Pural BT
GreenCoat RWS Pural
GreenCoat RWS Pro BT
GreenCoat RWS Pro

GreenCoat FoodSafe BT and GreenCoat FoodSafe for food industry needs.

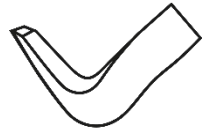
Long experience & innovativeness

- ▶ Long experience
 - GreenCoat Pural 25 years
 - GreenCoat Hiarc 40 years
 - GreenCoat PLX Pro BT 10 years
 - Extensive outdoor testing since 40 years
- ▶ GreenCoat® guarantee up to 50 years
- ▶ Forerunner with many products
 - BT technology
 - Polyurethane technology
 - Matt appearance
 - Chromate free products



Main short term targets

- ▶ GreenCoat Pural BT / Zero – limited volumes
- ▶ GreenCoat Pro BT / Zero – limited volumes
- ▶ GreenCoat Pural BT
 - Metallic colors for facades
 - Satin gloss level
- ▶ GreenCoat Sense BT



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- ✓ Fossil-free electricity
- ✓ Fossil-free fuels
- ✓ Fossil-free internal transports
- Fossil-free sponge iron based on the HYBRIT® Technology
- ✓ Based on high-quality recycled steel



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TOWARDS FOSSIL FREE GREENCOAT® PORTFOLIO

Change into SSAB Zero™ and SSAB Fossil-Free™ will reduce main part of carbon emissions from GreenCoat®

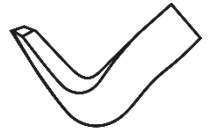


Carbon emissions from color coated steel

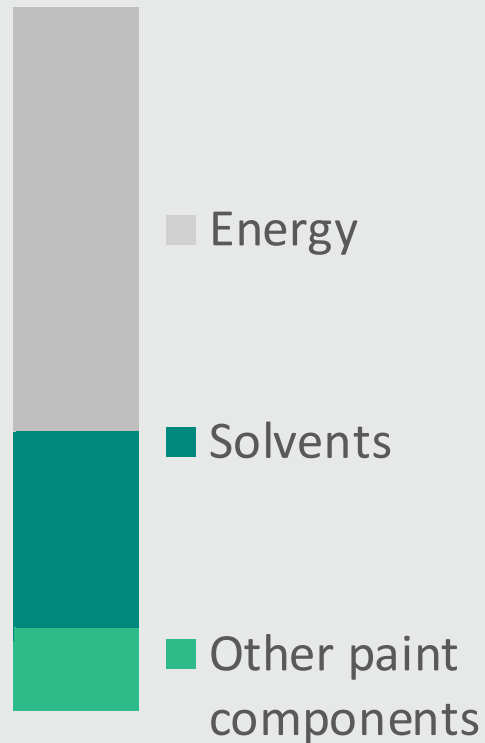
1. Steel slab ~ 75%
 2. Downstream operations including metal coating ~ 15%
 3. Color coating operations ~ 5%
 4. Paints and chemicals ~ 3-4%
- } Metal coated steel > 90%



Where does this 9% of color coated origin carbon emissions come from?



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- ▶ Today natural gas or propane.
- ▶ With bio-based gas carbon emissions would not be fossil based.
- ▶ Investments to new curing technologies using electricity would remove carbon emissions.

- ▶ Today needed to make the desired consistency for the application.
- ▶ Possibilities to change into bio-based under investigation in R&D.
- ▶ Long term target to get rid of solvents.

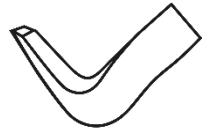
- ▶ Not emissions from our production, but bounded CO2 in the product.
- ▶ Binder, pigments, additives
- ▶ Part already today based on bio-based sources made from Swedish rapeseed oil (BT).

Future fossil free GreenCoat® products...



- ▶ SSAB Zero™ and SSAB Fossil-Free™ steels gradually into use with selected GreenCoat® products.
- ▶ Energy in color coating process
 - Bio-based gas under evaluation
 - Long-term electricity and new curing technologies
- ▶ Targets with the coatings
 - Bio-based solvents with selected products
 - Long term products without solvents
 - Bio-based and recycled raw material strategy
 - Further increase product durability





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THANK YOU ANY QUESTIONS?

