HOUSE KD BY GWSK ARKITEKTER, STOCKHOLM
The north-east coast of Sweden’s island of Öland is characterized by small villages for fishermen and farmers. Traditionally, the houses and barns here are placed a distance from the coast where trees and shrubs provide protection against stormy winds. The buildings are almost exclusively built with wooden panels and sheet metal roofing.

It is here that Architect Timo Karasalo, from GWSK Arkitekter, was contracted to design a year-round vacation home with a focus on sustainability and ease of maintenance. The result, called House KD, achieved this goal and has been nominated for the 2017 World Architecture Festival (WAF) Award.

House KD was designed and built from Karasalo’s vision of a “modern barn”, with a typology that naturally connects to the building traditions of the village. The materials and the details, however, are intended to give clear signals that the house was built in modern times. The traditional barn pitched roof made from GreenCoat® color coated steel, from SSAB, is an example of this.

The client’s requests for a maintenance-free façade and roof, together with the advantage of fast installation, led to GreenCoat® being chosen as the material for the corrugated steel roof. High durability and a low environmental footprint were other factors that went into the decision.

GreenCoat® is widely known among metal roofers for its easy hand forming, long color retention and resistance to UV radiation, corrosion as well as scratches. Most GreenCoat® products feature a Bio-based Technology (BT) coating with a substantial portion of Swedish rapeseed oil instead of fossil based oils, which are traditionally used. The unique, patented BT solution developed by SSAB reduces the environmental footprint significantly.

In addition, GreenCoat® provides building specifiers with a significantly lighter material compared to alternative solutions and has the lowest temperature elongation of all metals for reduced buckling.

The WAF Awards are highly recognized globally by architects and are presented each year at the World Architecture Festival, a three-day event in Berlin, Germany for architects and interior design professionals.
What were the challenges you had to overcome while designing House KD?

The challenge was to fit a modern building into an old village surrounding. I wanted to find a building typology that naturally connected to the village’s current scale and grammar. This project is a story of letting signs in the local building tradition to inspire the design concept.

Why did you choose steel for the roof and not other materials?

The idea of a “modern barn” came up quite early in the sketching phase since the buildings in this area are almost exclusively built with sheet metal roofing. I saw it as a natural link to the local building tradition.

What can you tell me about the quality of GreenCoat® steel in general?

I have only good experiences with GreenCoat® steel. In our daily work, our clients want us to choose materials that are both durable and environmentally friendly. When it comes to sheet metal work, GreenCoat® meets both of these criteria.

Are there any unique design elements used in the construction of the roof?

I wanted to have as light of a roof construction as possible. So, I designed prefabricated trusses with standard steel as part of a tension rod system. The light feeling of the exterior sheet metal could then be reflected in the interior as well.

What do you think about having selected sustainable steel with Swedish rapeseed oil in the paint?

It felt very good, especially with this project, to say to the farmers in the area that the surface coating came from their own fields!

Why did you choose the Metallic Silver color for the roof?

I was – and still am – very much attracted to that combination, tin roof and light grey walls! Due to demands on maintenance free façades, I chose light grey concrete. In combination with the Metallic Silver color, I managed to connect to the old tradition, but in a modern way.

Do you have more examples in which GreenCoat® steel is being/will be used?

One of our ongoing projects is an extension of an existing office building. We are designing two new floors with a total area of 4000 m². The new façades will be made of glass and GreenCoat® steel.

How do you feel about being shortlisted for the 2017 WAF Awards?

It is, of course, a great honor, but also recognition that despite a limited budget, it is possible to create good architecture.

House KD is currently nominated for:

2017 Shortlisted World Architecture Festival (WAF) Awards
**GreenCoat®** is SSAB’s brand for innovative color coated steel solutions for the building and component industry. As the greenest product portfolio of high quality color coated steel for exterior building applications and one of the most comprehensive for the entire building industry, GreenCoat® provides many benefits including:

- High color retention and long-lasting finishes in any weather
- Environmentally conscious color coatings (most products use a substantial portion of Swedish rapeseed oil in the coating)
- Nordic top quality steel
- Easy formability — even at temperatures below zero for some products
- Low weight
- Wide color offering
- Performance guarantee

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. This unique, patented solution reduces the environmental footprint of GreenCoat® products significantly and it makes the GreenCoat® color coated product portfolio the market’s greenest offering for roofs, façades and rainwater systems.

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.