

Docol® 600DH-GI – SSAB's first 3rd generation metal-coated steel product ready for customer trials

SSAB supplies quality high-strength steels to leading global automotive manufacturers. We are now expanding our product offering with so-called third generation hot-dip galvanized steel products. Docol 600DH-GI is the first product ready for customer trials.

"We are taking a step towards third generation steels by launching the galvanized Docol DH steel family. A product with a tensile strength of 600 MPa is now ready for customer trials and will be joined later this year by products with a tensile strength of 800 and 1000 MPa," said **Matti Säily**, Product Manager, Metal Coated Products, SSAB Europe.

One of SSAB's strategic targets is to grow the share of premium steels annually in the automotive industry to 750 thousand tonnes by 2020. Shipments amounted to 442 thousand tonnes in 2016 and last year had already grown to 537 thousand tonnes. Third generation steels are one of the ways towards this goal and enable us to serve customers even better.

"Trends towards structural light weighting, tougher emissions limits, safety standards and electrification improve the growth outlook for the use of special high-strength steels in the automotive industry. The industry also demands high formability for special components which allow light weight. Sustainability is also increasingly an important factor. SSAB has noticed that it is worth focusing on the automotive segment," explained Arnaud Guerendel, Global Sales Director, Automotive Segment, SSAB Europe.

Made to automotive standards

"First generation steels still play a major role, but extra good formability now creates an opening for third generation steels to compete with press-hardening steels and aluminum. Third generation steels combine strength and good formability at a new level, and they come into the picture when complex, challenging shape is required," added Matti Säily.

Our approach in product development is to offer all our high-strength steel products to the automotive segment in compliance with major OEM (original equipment manufacturers) standards and requirements. Besides OEM standards the new developments in third generation steels follow also VDA standard (a German quality management system standard initiated by automotive industry).

First generation steels are suitable in many cases and will continue to play a big role in future car design, but they inevitably have limited formability. Second generation steels suffer from poor usability because of high alloying and high costs. Third generation steels can solve many problems and benefit the customer because they are just as strong as existing products and their enhanced formability means they can be used in various safety and structural items in BIW (Body-in-white).

DH steels can also be used to resolve problems in current vehicle components that have been designed for first generation steels if there have been challenges with formability.

FACT BOX:

Product name: Docol 600 DH > Docol CR330Y590T-DH-GI

Third generation AHSS (advanced high-strength steels) are a response to customer needs for strength, formability and usability. This generation of steels is already on the market, but their development is still at a fairly early stage. What is common for many of the concepts is to secure a metastable retained austenite in the steel microstructure which is transformed to martensite during forming (TRIP-aided multiphase steels). Further development in third generation AHSS are Q&P (Quenching & Partitioning) and Medium Manganese steels.

DH steels (dual phase with improved formability, a name based on the VDA standard) refers to a product based on DP (dual phase) steels where the retained austenite in the microstructure brings greater formability due to TRIP (transformation induced plasticity) effect.

For further information, please contact:

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SSAB is a Nordic and US-based steel company. SSAB offers value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has employees in over 50 countries. SSAB has production facilities in Sweden, Finland and the US. SSAB is listed on Nasdaq Stockholm and has a secondary listing on Nasdaq Helsinki. www.ssab.com.

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