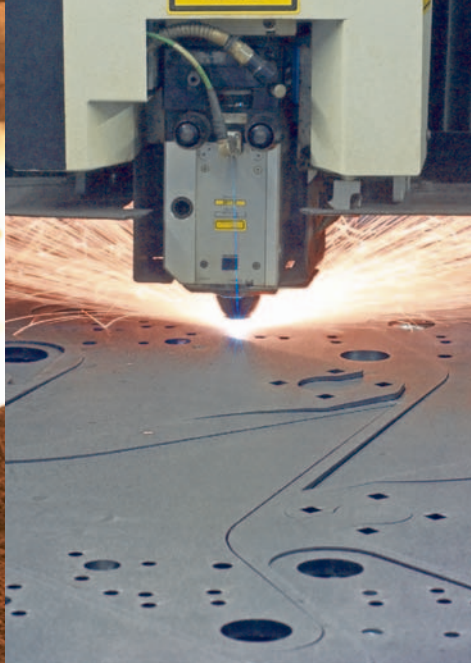




NAMES SHARPEN THE IMAGE

The highlight brands of Salzgitter Flachstahl GmbH



Diversity under one roof

Welcome to our new highlight brands

Steel retains its position as the material number one. Steel accounts for some sixty percent of today's cars. But not all steels are the same. Our industrial steels have many different names reflecting their particular material properties. Many of these names are already well known and accepted in the market. That is a good thing, and should stay that way.

For selected highlight brands from Salzgitter Flachstahl, however, we have developed a new naming concept which follows a clear naming system. We aim to help our clients and employees to have a better overview of our growing product portfolio and avoid the risk of arbitrary naming in the future.

In choosing the names, we have drawn on the world of trees and the material wood which has been used in this way for millennia. Steel and wood have more in common than you might assume at first glance – both in connection with the fundamental material properties, as well as with regard to the ecological sustainability of the material.

In this brochure we outline our new concept for you. Please take a few minutes time and let yourself be inspired: Every name of our highlight brands shows a distinct image.

Frank Heidelberger
Head of Marketing at Salzgitter Flachstahl GmbH

STEEL accounts for around
60%
of every car on the road today

New naming architecture



Tree wood and steel
– Valuable materials
for demanding constructions

Quick answers to your questions

Why the company identification?

It is an important signal for trust and a promise of quality: “Sal” functions as Salzgitter Flachstahl’s signature and associates the product with the corporation’s brand.

Highlight brands – what for?

They are the highlights in our product portfolio. They underline the innovative strength of Salzgitter Flachstahl, which also contributes to strengthening the company brand.

Why exactly at the present time?

Our portfolio is undergoing expansion. New names have to be created on the basis of a plausible structure which allows important product characteristics to be represented meaningfully.

Why take the names of trees?

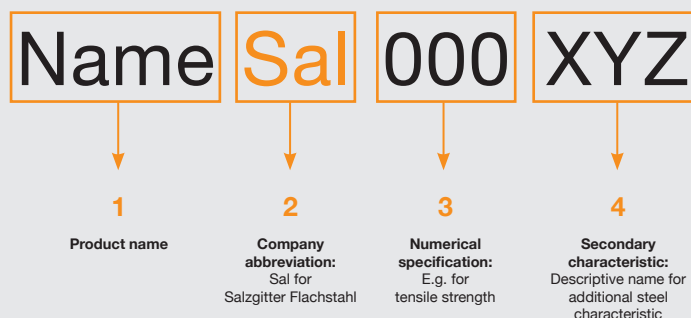
Wood from trees is in many ways comparable with steel: ecologically sustainable, ideal for further processing, and as versatile as steel in its material properties. The tree name then establishes an association with the steel characteristics of our highlight brands.

Consistent construction principle

What name do we give the child? This question not only occupies parents when the birth of a child is on the horizon, but also many companies. Because an expansion of the product portfolio means that names have to be found that satisfy many very different requirements. The name should identify the new product as a member of a larger product family, include a recognizable link to the company and express its most important properties. This can mean linking a pile of technical properties in a way which can be pronounced and remembered. In addition the name should also be catchy and express the character of the brand. Our highlight brand names are based on four naming “building blocks” that are always arranged in the same order:

The four building blocks

- 1. Product name.** The first part expresses the main characteristic of the steel. Here we make use of tree names – see pages 4-5 for more on this.
- 2. Salzgitter Flachstahl corporation.** The second part is an abbreviation of the Salzgitter Flachstahl company name – “Sal”. This is the central column of the naming architecture which remains constant for all of Salzgitter Flachstahl’s highlight brands. It works like a surname, strongly emphasizing the connection with Salzgitter Flachstahl.
- 3. Specification.** In third place, there is generally a numerical characteristic. This may serve to specify the tensile strength, or the yield strength of the steel, for instance.
- 4. Secondary characteristic.** The final part – if required – is a further important material characteristic. This serves to specify the steel more precisely.



In a nutshell – the secondary characteristic

In order to emphasize the guaranteed processing characteristics with laser, plasma or water jet cutter, our laser cutting grades include the abbreviation *seca*[®], derived from the Latin “secare” = to cut. The complete name is then something like *S355MCseca*[®]. For guaranteed hole expansion, the abbreviation *xpand* is appended – as in *HCT600XDxpand*.

Connecting element

Ideas become reality

Every idea produced by human ingenuity depends on suitable materials in order to become a part of reality. Early settlements like the stilt houses of Uhdingen on Lake Constance were supported on solid wooden poles. For shipbuilding too, and the manufacture of automobiles, wood was the natural choice of material for a long period of time. Many innovations of the industrial age, like modern rail traffic, are also virtually unthinkable without the use of suitable types of wood. Wooden railway sleepers represent a typical example.

At present, the significance of wood as a material for construction and other purposes is even increasing: Wood from trees has an astonishingly wide spectrum of properties. There are soft and hard, light and heavy, extremely long-lasting and less durable kinds of wood. This fascinating diversity of material properties is shared by wood with the modern material steel. We allowed this to guide us in the creation of names for Salzgitter Flachstahl's highlight brands.

Biomechanical discoveries

“The Karlsruhe physicist and biomechanics expert Clause Mattheck was able to use computer models to show that the adaptive growth of trees tends towards an optimal form, e.g. the avoidance of notch stresses at branching points, thereby minimizing the danger of fractures. These discoveries have led to optimizations, including in mechanical engineering.”*

*Quote: Wikipedia

Source: Deutsche Messe



Highlight from Expo 2000 in Hanover:

The biggest self-supporting wooden roof in the world, constructed from silver fir beams.

Programmed for growth

Here we provide an introduction to the first five highlight brands on the basis of the new naming concept. As shown on the previous page, the first component of the name expresses the main characteristic of the steel. It is derived from the Latin name for the chosen tree. In some cases, the interests of spelling or pronunciation require the original Latin names to be adapted for the new combined brand name by omitting or altering letters.



Tectona grandis /
Teak tree



Bark effect /
protective surface layer



Lotus effect /
Perfect corrosion protection



Handroanthus impetiginosus /
Lapacho tree



Robinia pseudoacacia /
Black locust

FolaSal® TektoSal®
StronSal®
AndroSal®
RobuSal®

TektoSal®400 This name replaces ASH400 – a steel with extremely high surface hardness and wear resistance (HBW400). The choice of name relates to the properties of tropical teak-wood, in Latin “tectona grandis”. As the sound of the name already suggests, the teak tree supplies particularly robust and durable wood.

FolaSal® This name is used to bring Folastal® into Salzgitter Flachstahl's highlight brands – the fixed company identifier “Sal” replaces the final syllable “stal”. Only a small alteration, which naturally leaves the important part unchanged. Like Folastal®, FolaSal® stands for excellent surface coating characteristics.

StronSal® Our highlight brands obtain an additional member with StronSal® – a zinc-magnesium hot dip coating which was previously known to the market as Stroncoat®. Here too, the new name is similar to the previous one. “Stron” comes from “strong” in English, which expresses its powerful coating and excellent corrosion resistance properties. The increased abrasion resistance in forming processes represents a further plus point for StronSal®.

AndroSal®960 replaces the standard appellation S960MC/QL. This is a water quenched steel grade whose material properties are distinguished by super high strength. “Andro” is derived from the Latin “handroanthus impetiginosus” for the South American lapacho tree, which has one of the hardest woods of all.

RobuSal®800 replaces the brand name LH800®, a steel distinguished by extreme stability and fatigue strength, and which post-hardens at ambient temperature. Here, we make use of the name of the black locust tree, in Latin “robinia pseudoacacia”. The black locust provides extremely hard and tough wood which is extremely durable and which expresses the material characteristics of this steel.

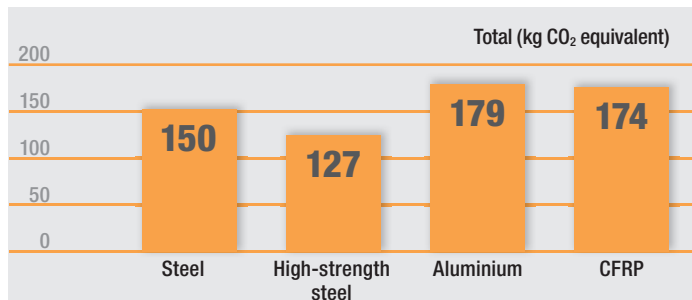
Clean record

Sustainability makes the difference

Steel is one of the most sustainable materials of all. With our innovative products we make a decisive contribution here. A comprehensive package of individual measures ensures that our careful stewardship of finite resources yields exceptional results.

Our contribution to CO₂ reduction

In a holistic view of production and utilization phases (lifecycle analysis), our highlight brands make an important contribution to resource and environmental conservation. In lightweight automotive construction, they offer an enormous potential compared with simple construction steels, aluminum and carbon-fiber reinforced plastics (CFRP) for the reduction of CO₂ emissions – combined with an exceptional price/performance ratio. This means that our steels make, and will continue to make, a decisive contribution to affordable and environmentally friendly mobility.



Viewed over its lifecycle, high strength steel is the most CO₂ neutral material – by far.

Excellent performance

A large number of measures have now reduced CO₂ emissions at Salzgitter Flachstahl by around 240,000 tons per year. A contribution to this is made by the modernization of the in-house blast-furnace gas power plant, which has led to an efficiency increase of about 30 percent in power generation. In acknowledgement for the package of measures to increase the energy efficiency and optimize power generation, Salzgitter Flachstahl was awarded the first prize of the Energy Efficiency Award of the dena (German Energy Agency). Further evidence of continuous efforts with best results is the label “Best Practice Energy efficiency 2014”, which Salzgitter Flachstahl received from dena.

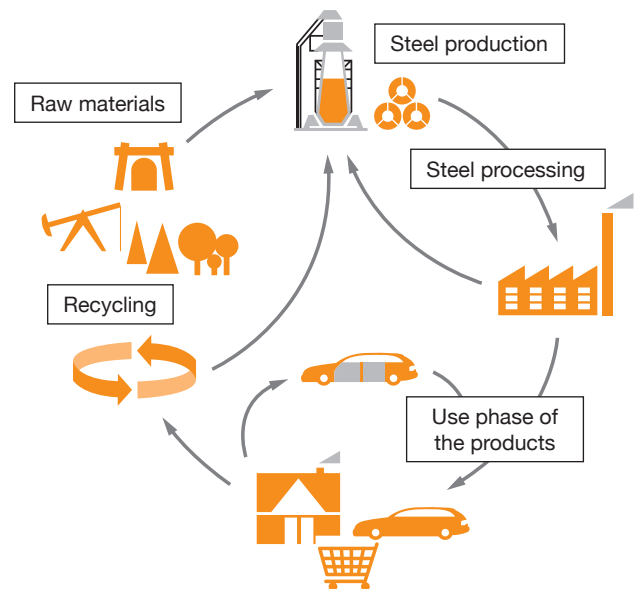


Principle of multi-recycling

After an average of 13 to 15 years, a car reaches the end of its life, and the material is sent off for recycling. Here, too, steel exhibits the best values of all: Practically 100 percent of the material is reused.

Today's scrap becomes tomorrow's raw material. Around 80 percent of the steel that has ever been produced is still in use as a result of multiply repeated recycling processes. Here, Salzgitter Flachstahl's highlight brands make a decisive contribution.

Lifecycle steel products



- **Steel can be recycled without restrictions and without loss of quality**
- **1-2 percent of alloying material and intelligent processing enable a wide property and application spectrum**
- **Good ecological results for primary and secondary production routes**
- **Cost-effective material with further potential for lightweight construction through novel steel concepts**

118

innovative
measures for
energy efficiency



240,000 t
CO₂ reduction/year

580 GWh
reduction in energy
consumption

285 million €
investment in energy saving
measures



Salzgitter Flachstahl
– our strong brands make a sharp image.

Salzgitter Flachstahl GmbH
Eisenhüttenstraße 99
38239 Salzgitter
Germany
Tel.: +49 5341 21-2890
Fax: +49 5341 21-8536

Postanschrift/Postal address:
38223 Salzgitter
Germany

www.salzgitter-flachstahl.de