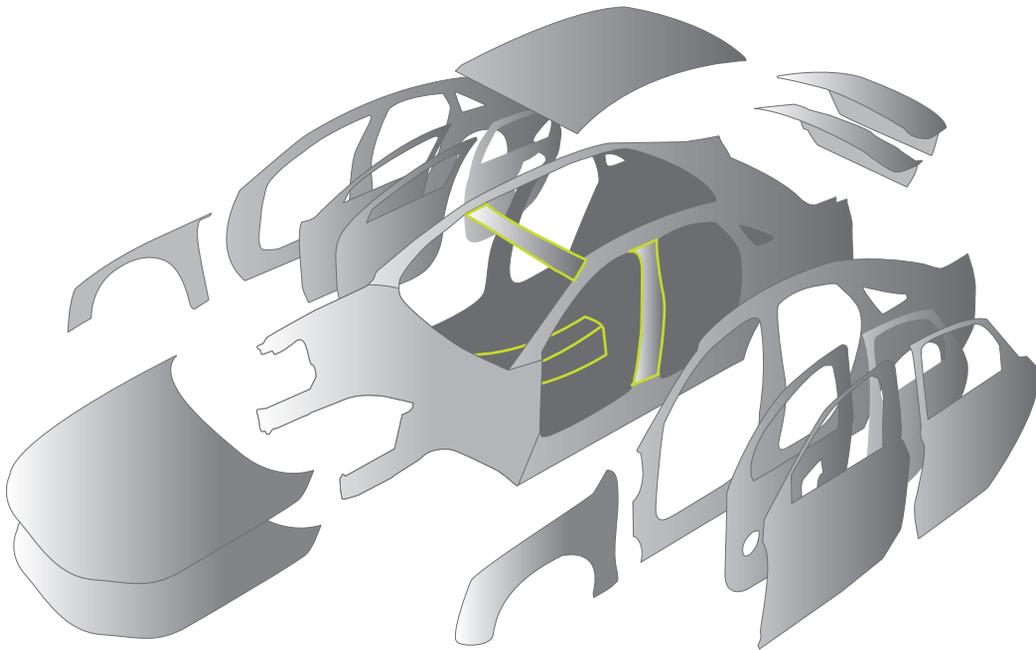


No Compromise with **Light-weighting!**

Strongalex® high-strength alloys for structural parts

Thanks to high yield strength and good formability, Strongalex® allows customers to down-gauge strength-limited parts in the body structures.

Strength - Formability - Light-weighting



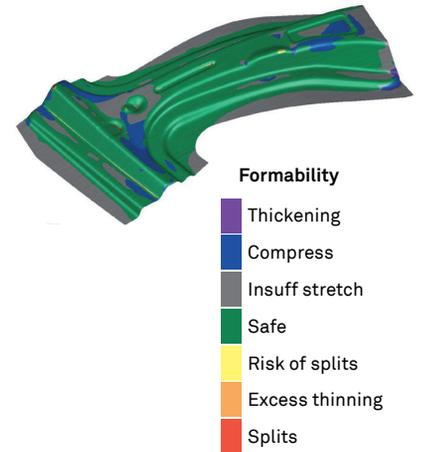
Constellium's **Strongalex®** products are high-strength alloys, specifically designed for demanding automotive structural parts and reinforcements.

Strongalex® is a 6xxx balanced property alloy with good formability in T4 temper and a typical in-service yield strength of 270 MPa.



Trend towards light-weighting

With its enhanced mechanical properties, **Strongalex®** enables greater weight-saving compared with equivalent steel products. This allows automotive customers to meet light-weighting targets without compromising on high-strength criteria.



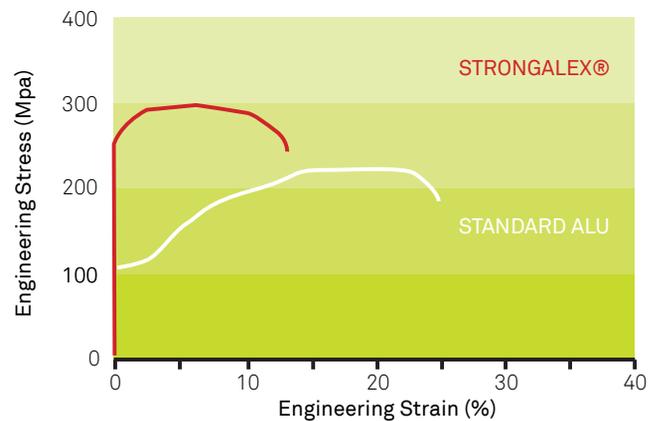
The product range brings the following key advantages to automotive OEMs:

- ▶ High yield strength (YS) and ultimate tensile strength (UTS) after paint baking
- ▶ Good formability in T4 temper
- ▶ Light-weighting
- ▶ Good corrosion resistance

Trend towards higher strength

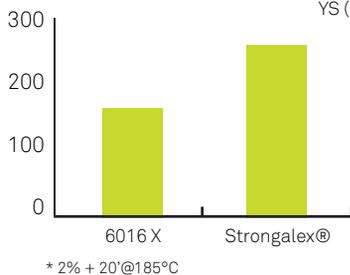
The **Strongalex®** product range uses fast bake hardening to increase strength and reduce thickness on inner panels. We are developing stronger versions to replace steel in ever more demanding applications.

As a result, **Strongalex®** can withstand greater engineering stress for less engineering strain when compared with standard aluminium.



Increased strength to reduce weight

Standard inner products and Strongalex®
YS (MPa) after PB*



Strongalex® uses fast bake hardening to increase strength, which allows for further thickness reduction.

- ▶ Forming: Low T4 properties to guarantee good formability
- ▶ Strength: High bake hardening values (YS>250MPa, UTS>300MPa)

Conversion capabilities

Constellium works with the surface condition, offering EDT of mill finish, and chemical conversion coatings. Our lubricants include stamping oils, protection oils and hot melt dry lubricants. For more details, please refer to the Global Offering datasheet.

Strongalex®: Typical properties

* 2% pre-strain + 20 minutes at 185°C

As supplied (T4)					After PB*	
YS (MPa)	UTS (MPa)	A80%	n5	r10	YS (MPa)	UTS (MPa)
130	260	25	0,26	0,70	270	320

This publication is not a contractual document and in no way incurs the liability of Constellium for the information contained herein.