SILVERBACK HD

INFO SHEET

COMPOSITE VS. ALUMINUM

BENEFITS OF MODERN COMPOSITE SOLUTIONS OVER STEEL AND ALUMINUM

Much like the heavy-duty parts industry, other major industries have begun utilizing modern composite solutions, instead of metal options, due to numerous advantages. Examples include Boeing 737 aircraft bodies and professional, high-end baseball bats.

In compliance with its Intentional Engineering Standards, SilverbackHD adopted using this advantageous newer technology of composite materials for SilverbackHD air springs. In particular, a special type of composite made of heat stabilized, re-compound polyamide 66, reinforced with 30% of glass fiber, providing the following benefits;

EXCELLENT AT HANDLING TENSION

Composites are better at handling tension owing to the higher capacity of vibration and stress absorption, compared to aluminum. This is due to the higher elasticity and fibers in the composite compound."

STRONG, YET FLEXIBLE

Metals most likely snap or take on permanent damage when bent. Composites can bend significantly, without snapping, due to their strong, yet flexible nature and ability to be designed with precise weight distribution.

CORROSION-FREE

The reason why the use of aluminum in spring brakes was banned many years ago is the weakness of aluminum against corrosives, such as salt and calcium chloride. Due to its non-metallic compound, composites are much more resistant to corrosives. It is most evident against magnesium chloride, which is being used on roads across the USA and Canada and is many times more corrosive than salt and calcium chloride.

LIGHTER IN WEIGHT AND PRICE

Composites are lighter than metals, allowing composite piston air springs to reduce the weight up to 12kg / 26.5 lbs per axle and 15 to 25 percent less costly, resulting in better prices for the final products.