

ZOLTEK PX35 KS FIBER FOR SMC

Zoltek PX35 KS fiber is produced with Zoltek's low-cost 50K carbon fiber, and ideally suited for Sheet Molding Compound (SMC) applications. Through the Toray Group's proprietary process, the 50K carbon fiber bundles are formatted to behave like 3K fiber bundles, which improve fiber dispersion, mechanical properties, material flow, and provide a more consistent SMC product overall.

The charts below demonstrate the improvement in flexural strength by 36%, and flexural modulus by 10%. In addition to the higher mechanical properties, the coefficient of variation was reduced by more than one-third.

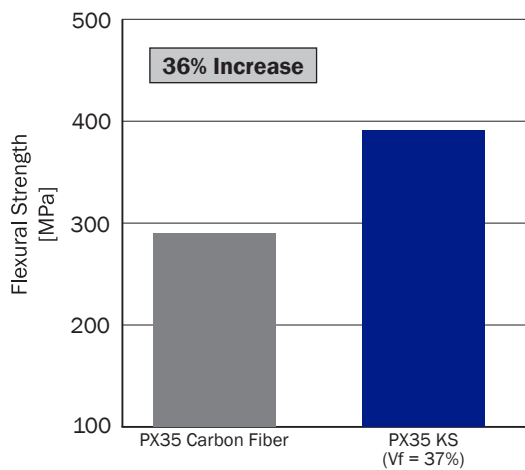


PX35 Carbon Fiber
(Conventional 50K)

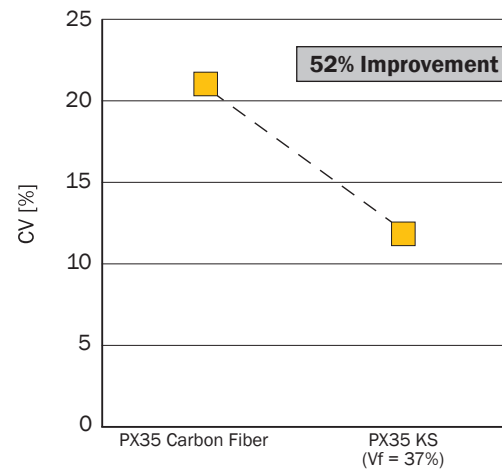


PX35 KS
(50K dispersed like 3K)

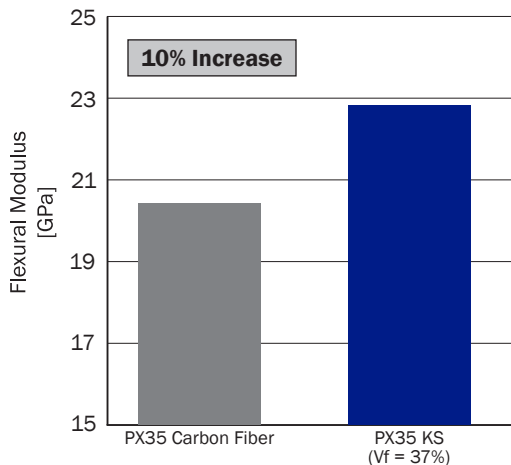
Flexural Strength



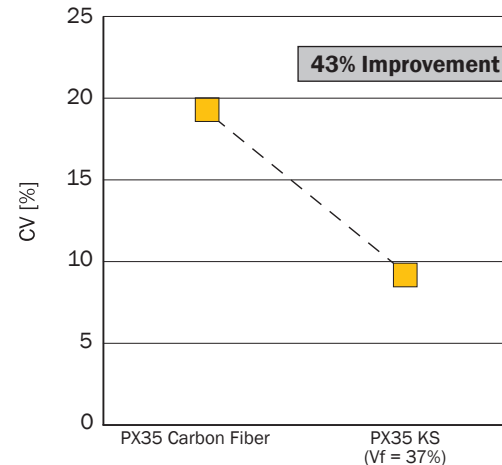
Flexural Strength Variation



Flexural Modulus



Flexural Modulus Variation



Zoltek's PX35 KS fiber has improved material flow, which allows for thinner molded parts with an equivalent stiffness, and sets a new benchmark for low-cost carbon fiber SMC against other materials like fiberglass, aluminum, and steel. PX35 KS fiber is available in sizings compatible with both epoxy and vinylester resins.