

## **Elucidating the impact of functionalized rubber coupled to silica**

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### **Abstract**

The present study assesses the impact of functionalized rubbers coupled to silica on in-rubber properties of silica-filled tire tread compounds. For this, silica was pre-reacted with functionalized SSBR. Incorporating this rubber-modified silica, along with a small amount of covering silane, enhances in-rubber properties, particularly by reducing filler-filler interactions.