

Novel Monosulfide Silane Crosile-965

Crosile-965 is a novel monosulfide silane, mainly used to reduce tire rolling resistance while improving rubber compounding efficiency, lowering Mooney viscosity and enhancing the dispersion of reinforcing fillers.

Technical Data:

Test Item	Specification	Test Method
Appearance	Colorless to dark yellow liquid or milky white solid	Visual inspection
Flash point (°C)	>170	GB/T1671-2008
Viscosity (mPa·s)	40-100	GB/T 10247-2008
Refractive index (25°C)	1.45-1.48	GB/T 6488-2022
Sulfur content %	2.2-3.6	GB/T 30309-2013
Heating loss %	≤3.5%	GB/T-1699-2003
Density (25°C)	0.98-1.00	GB/T 4472-2011

Product Application:

Crosile-965 is an advanced product specially designed to enhance the chemical coupling between silica and rubber molecules. In green-tire applications, Crosile-965 offers a higher silane-polymer coupling efficiency than Crosile-69 (4S) and Crosile-75 (2S). This not only improves the rebound performance of the rubber, but particularly at 60 °C it significantly lowers the loss factor ($\tan \delta$), thereby markedly reducing fuel consumption.

Meanwhile, Crosile-965 also features a significant 80% reduction in volatiles, effectively lowering VOC emissions. This provides strong support for environmental protection and sustainability, in line with the stringent current requirements for reducing VOC emissions.

It is worth mentioning that when Crosile-965 is used for one-step compounding, it can lower Mooney viscosity and improve the dispersion of reinforcing fillers, thereby increasing compounding efficiency. This further optimizes the production process and makes a positive contribution to the performance and sustainability of rubber products.

Application Method:

Add together with silica; the recommended dosage is 10–12% of the silica, and can be adjusted according to product requirements.

Packaging & Storage:

Packaging: 25 kg net in a plastic (PE) drum.

Storage: Keep sealed in a cool, ventilated, dry place. Shelf life: 12 months under normal storage conditions.

Handling note: A small amount of flocculent matter may appear under normal sealed storage and does not affect use. It is recommended to use up the whole contents at once after opening; if not, the open exposure time should not exceed 8 hours. Storage under high-humidity conditions (relative humidity not exceeding 80%) is strictly prohibited; otherwise hydrolysis may cause gelation and affect product performance.