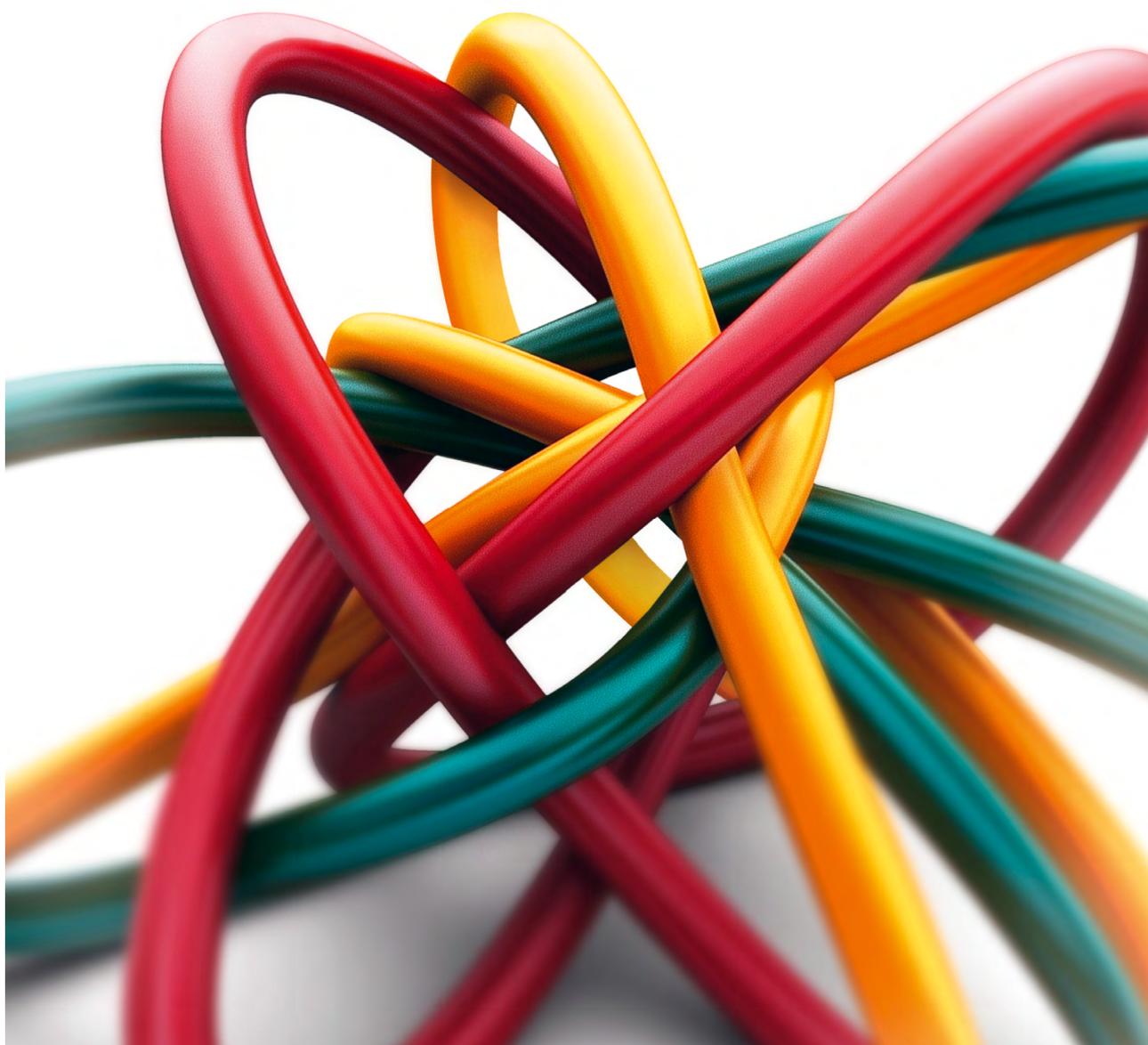


RUBBER SOLUTIONS BY EVONIK



AEROSIL®  SIPERNAT®  ULTRASIL®  VESTENAMER® POLYVEST®
Si 363® COUPSIL®

With its wide product portfolio, global production network, local service, and application technology expertise accumulated over decades, Evonik is the strong partner to the rubber industry.



MECHANICAL RUBBER GOODS

AEROSIL[®], SIPERNAT[®], ULTRASIL[®]

The silica reinforcing fillers improve the tear strength, dimensional stability and durability of MRG.

LIQUID RUBBER SILANES: Si 69[®], Si 266[®], Si 363[®]

With the use of the right organosilane, the reinforcement capabilities of the Silica/Silane system in rubber compounds are brought to an optimum.

SOLID SILANE BLENDS: X 50-S[®] and COUPSIL[®]

Different silanes pre-reacted with silica (COUPSIL[®]) or dry blended with Carbon Black (e.g. X 50-S[®]) for easier handling or processing.

VESTENAMER[®]

VESTENAMER[®] is a semicrystalline rubber (TOR) that is used as processing aid for the rubber industry. It reduces viscosity, improves flow, increases the compatibility of rubber blends, controls tack, enhances green strength, keeps hardness, improves dynamical properties, and simplifies rubber recycling.

POLYVEST[®]

Silane and maleic anhydride functionalized grades of POLYVEST[®] allow improving the dispersibility of inorganic fillers in rubber compounds and their adhesion to polar substrates. Their use in EPDM compounds bring numerous advantages like reduced compound viscosity, shorter vulcanization time and higher tensile strength, among others.

PLASTICS RUBBER COMPOSITES

VESTENAMER[®]

VESTENAMER[®] improves bonding between rubber compounds and plastics, like in EPDM/polyamide composite parts. Moreover, it improves mechanical properties of thermoplastic elastomers (or vulcanizates) made from polyolefins and (recycled) rubber.

SHOE SOLES

AEROSIL[®], SIPERNAT[®], ULTRASIL[®]

Silica reinforcing fillers are indispensable for a wide range of applications, whether for improving wear properties, enhancing traction or for modern design as transparent and/or translucent soles.

LIQUID RUBBER SILANES: Si 69[®], Si 266[®], Si 363[®]

The rubber silane is essential to improve the elasticity and wear properties of shoe soles. The Silica/Silane system has become the benchmark in modern sport shoe soles.

COUPSIL[®]

In COUPSIL[®] products the silica is already pre reacted with the silane. This makes the application of the Silica/Silane system much simpler.

VESTENAMER[®]

VESTENAMER[®] can solve challenges in modern shoe sole manufacturing by enabling the use of recycled rubber materials, improving rubber foaming processes, or enhancing abrasion resistance and dynamic properties.

RUBBER RECYCLING

VESTENAMER[®]

VESTENAMER[®] allows efficient processing of ground (tire) rubbers into a tough material used again in a variety of applications such as molded goods, rubber flooring tiles, animal comfort mats, virgin rubber blends, or road construction. It solves typical challenges of recycled rubber materials like high viscosity, scorch, stickiness, reduced product lifetime, and surface appearance.

ROAD CONSTRUCTION

VESTENAMER[®]

Evonik is pursuing a sustainable and cost-effective approach to road construction. VESTENAMER[®] makes it feasible to process rubber powders from end-of-life tires for production of rubber-modified bitumen or asphalt that meet highest performance in quality and service life of road surfaces. Long-term references all around the world make it the leading additive solution for rubber-modified asphalt.

TIRE

ULTRASIL[®]

ULTRASIL[®] precipitated silica significantly reduces the rolling resistance and provides excellent wet grip and good abrasion resistance. Thus, fuel consumption and CO₂ emissions can be reduced by up to 8 %.

LIQUID RUBBER SILANES: Si 69[®], Si 266[®], Si 291[™], Si 363[®]

These sulfur functional organosilanes reduce fuel consumption (reduced rolling resistance) and enhance driving safety by improving wet grip and tire wear resistance.

SOLID SILANE BLENDS: X 50-S[®] and COUPSIL[®]

Silanes prereacted with silica (COUPSIL[®]) or dry blended with Carbon Black (X 50-S[®]) for easier handling or processing.

VESTENAMER[®]

VESTENAMER[®] is used in all parts of the tire, for example to achieve low rolling resistance and good wet traction in green tire treads. Leading tire manufactures solve manifold processing challenges with VESTENAMER[®] like green strength, tackiness, compatibility, or flow, without compromising dynamic properties or hardness. Additionally, it can increase the content of recycled rubbers and carbon blacks in tire compounds.

POLYVEST[®]

POLYVEST[®] liquid rubber enhance processing, reduce rolling resistance, improve snow and ice traction and the wet grip of tires.

[evonik.click/tires](https://www.evonik.click/tires)



SILICA:

AEROSIL[®], SIPERNAT[®], ULTRASIL[®]

LIQUID RUBBER SILANES:

Si 69[°], Si 266[°], Si 291[™], Si 363[°],

SOLID SILANE BLENDS:

X 50-S[°] and COUPSIL[®]

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