

# Casilane HP-669C

Casilane HP-669C is a sulphur silane coupling agent mixed with carbon black for advanced rubber formulations. It acts as a vulcanizing agent, activator, and reinforcing agent, leading to enhanced mechanical properties.

Optimal filler–  
rubber coupling

Minimal silane  
volatility in mixing

Competitively priced  
& globally available

## Applications

- Multifunctional silane coupling agent for rubber formulations, acting as a vulcanizing agent, activator, and reinforcing agent.
- Effective with fillers such as silica, fiberglass, talc, mica, and clay—enhancing their reinforcing effects.
- Improves filler–rubber interactions, enhancing abrasion resistance and dynamic performance.
- Suitable for NR, IR, SBR, BR, NBR, and EPDM rubber systems.
- Sulphur alkyl structure matches the deoxidizing rate of sulphur, enhancing heat resistance, crack fatigue, and durability.
- Ideal for manufacturing tires, hoses, belts, rollers, cables, footwear, and other molded or mechanical rubber products.

## Features and Benefits

- Improves mechanical strength, adhesion, thermal aging resistance, and flex life—ideal for long-term durability in demanding applications.
- Increases modulus and reduces moisture absorption, contributing to better dimensional stability and compound consistency.
- Enhances resistance to heat, pressure, and chemical degradation, supporting use in harsh operating environments.
- Improves performance in both dynamic and static applications, making it suitable for tyres, belts, hoses, and molded components.
- Strengthens filler–rubber interaction, boosting reinforcement with silica, mica, talc, and other fillers for higher abrasion and cut resistance.
- Reduces hysteresis loss, lowering rolling resistance and improving energy efficiency in tire and automotive applications.
- Promotes efficient vulcanization, with tetrasulfide functionality acting as a built-in crosslinking agent and activator.
- Pelletized form improves handling and dispersion, reducing dusting and ensuring easier processing in high-shear mixing operations.

## Mode of Action

Casilane HP-669C combines a silane coupling agent with carbon black to enhance filler–rubber bonding. The silane forms strong bonds with fillers like silica, while its tetrasulfide group chemically links to rubber during vulcanization. This dual reactivity improves crosslinking, filler dispersion, and overall compound performance. The carbon black adds reinforcement and simplifies processing.



Committed to Responsible Care

# Casilane HP-669C

## Packaging and Shelf Life

- Packaging: 25 kg or 50 kg paper vacuum bags with PE liner
- Storage: Store in a cool, dry, and well-ventilated area.
- Shelf Life: Longer than one year under standard conditions.

## Recommended Dosage

1.0–6.0 PHR, depending on compound formulation.

## Physical and Chemical Properties

Appearance	Black small pellet
Odour	Light alcohol odour
Sulphur Content	12% ± 1%
Insoluble Content in Butanone	52% ± 3%
Weight Loss at 105°C	≤2.0%
Solubility	Not soluble in water

## Inventory Status

Regulatory and inventory listing status may vary by region.  
Please contact us to confirm compliance for your specific region.

