

Casilane HP-174

Casilane HP-174 is a vinyl silane coupling agent and tackifier designed to improve mechanical, electrical, and adhesion performance in a wide range of polymers, composites, and coatings.

Best adhesion for
long term durability

Superior filler
polymer bonding

Competitively priced
& globally available

Applications

- Tackifier for Polymers: improves cohesion and tack in coatings, adhesives, and sealants.
- Performance in Polyester Materials: enhances mechanical, electrical, and optical properties, especially wet strength in PU, polybutene, PP, PE, EPDM.
- Strength in Fiberglass & Wires: boosts wet strength and mechanical performance in fiberglass, rubber, cables, and wires.
- Filler Treatment: enhances dispersion and wet strength when treating silica, talc, clay, kaolin;
- Additive for Light-Sensitive Materials: improves performance in light-sensitive formulations.
- Adhesion Promoter: enhances adhesion between organic and inorganic surfaces.
- Coupling Agent for Thermosets: improves physical and electrical properties in glass-reinforced and mineral-filled thermosetting resins.
- Bonding in Thermoplastics: acts as a bonding/blending additive in resin systems and reinforced thermoplastics (polyolefins, polyurethanes).

Features and Benefits

- Provides reactive vinyl functionality, enabling polymerization and crosslinking with various substrates.
- Contains Hydrolysable group for adhesion to inorganic surfaces through silanol formation.
- Improves adherence and durability.
- Improves strength of glass fiber size composite in reinforced polyester composites
- Enhances initial and wet strength of reinforced polyester resin composites.
- Enhances the wet electrical properties of mineral filled and reinforced composites.
- Significantly improves the dry and wet mechanical strength and electrical properties of unsaturated polyester composites filled with silica, glass, glass beads, silicates etc.
- Energy independent as a result of our on-site anaerobic digestion facility.
- Trusted partner- celebrating 100 years of chemical manufacturing in 2026.
- Global network of sales offices, direct logistics and US and UK formulating production centres ensuring security of supply and short lead times from stock.

Mode of Action

- Casilane HP-174 acts as a tackifier through copolymerization with acrylic, methacrylic, or acetic derivatives.
- It's hydrolysable groups bond to silica and metal oxides, while its organofunctional groups enhance wetting, adhesion, and interfacial bonding, improving the durability and performance of hybrid organic-inorganic materials.

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



Committed to Responsible Care

Casilane HP-174

Guidelines For Use

- Recommended dosage: 1.0–6.0 PHR depending on formulation.
- Add during compounding or mixing to ensure uniform dispersion.
- Suitable for filler treatment or direct addition in resins and rubber systems.
- For copolymerization, optimise process conditions for best tackifier performance.

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.

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