

Casilane HP-1120

Casilane™HP-1120 is an amino-functional silane designed to enhance adhesion, compatibility, and mechanical properties across plastics, coatings, adhesives, and glass-reinforced materials.

Superior bonding to broad range of substrates

Enhanced resin flexibility and toughness

Competitively priced & globally available

Applications

- **Polymer Coupling Agent:** improves compatibility and properties of polymers through coupling with inorganic materials.
- **Resin Performance Enhancer:** enhances compatibility, wet tensile strength, surface smoothness, and mechanical/electrical properties in phenolic, epoxy, melamine resins, and polypropylene
- **Glass-Reinforced Plastics:** improves performance of glass fibre composites for machine parts, building materials, pressure vessels, nylon, and magnetic plastics; compatible with glass, silica, clays, and related fillers.
- **Coatings & Paints:** Superior adhesion and surface cohesion of ethylene, epoxy, and polyurethane resin paints; particularly effective on difficult-to-coat metals.
- **Silicone Additive:** used in producing diamino-functional silicones (liquids/creams) to provide flexibility, gloss, and antistatic properties.
- **Resin Sand Reinforcement:** acts as a reinforcing agent for precision casting resin sands and oil well sand control; increases strength, wet strength, and reduces resin dosage.

Features & Benefits

- Enhances polymer-inorganic coupling, improving material compatibility and performance.
- Improves adhesion and surface smoothness, delivering stronger, more durable coatings and adhesives.
- Boosts mechanical, electrical, and optical properties, increasing overall product quality and reliability.
- Enhances flexibility, gloss, and antistatic behaviour in silicone-based formulations for specialty applications.
- Strengthens resin sand systems, improving wet strength and reducing resin consumption in precision casting and oil well operations.

Mode of Action

- Casilane™HP-1120 is an amino-functional silane that forms strong chemical bridges between organic polymers and inorganic surfaces.
- It's hydrolysable groups bond to fillers and substrates such as glass, silica, and metals, while its amino groups improve adhesion, compatibility, and interfacial bonding.
- This dual functionality enhances mechanical, electrical, and surface properties across a wide range of resin systems, coatings, adhesives, and reinforced composites.

Packaging

25kg, 200 kg and 1000kg plastic drums

Shelf Life

- Keep in cool, dry and ventilation place.
- Easily hydrolysed if in contact with water or moisture.



Committed to Responsible Care

Casilane HP-1120

Guidelines For Use

- Casilane™HP-1120 is easy to incorporate into standard formulation and processing workflows.
- Recommended dosage: 1.0–4.0 PHR, depending on the system and performance targets.
- Add during mixing or compounding to ensure even distribution and consistent performance.
- For filler treatment, pre-mix with glass fibre, silica, clays, and other inorganic fillers to maximise coupling efficiency.
- In coatings and adhesives, use to enhance adhesion, surface finish, and substrate compatibility—especially on challenging surfaces.
- In resin sand formulations, incorporate to improve wet strength, durability, and reduce resin consumption.

Physical and Chemical Properties

CAS Number	1760-24-3
Appearance	A colourless or pale-yellow transparent liquid.
Solubility	Soluble in aether, benzene. Insolubility in water.
Boiling point	259°C
Molecular weight	222.36

Selling Specification

HP-1120 Content	95.0%
Density (20°C/cm ³)	1.0100 ± 0.0050
Refractive index (25°C)	1.4420 ± 0.0050

Inventory Status

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