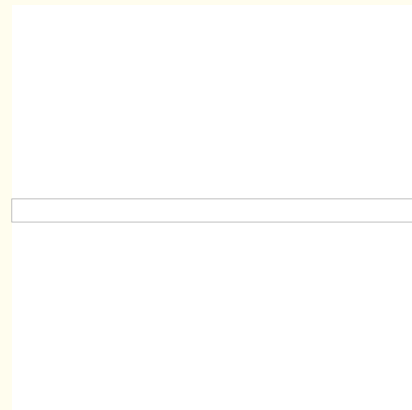


Weather-Resistant EPDM Rubber-to-Metal Bonding Adhesive Thinkbond EP for Outdoor Automotive Sealing Systems

Our Product Introduction

Basic Information

- Place of Origin: Shanghai, China
- Brand Name: Thinkbond
- Certification: ISO 9001:2015
- Model Number: EP
- Minimum Order Quantity: 20 kg
- Price: USD 16-34 / kg
- Packaging Details: 5kg/can, 20kg/pail, or customized packaging available
- Delivery Time: 7-15 working days
- Payment Terms: T/T, L/C, Western Union
- Supply Ability: 5000 kg per month



Product Specification

- Application: EPDM Rubber To Metal Bonding, Outdoor Automotive Sealing, Weather-exposed Components
- Target Elastomer: EPDM (Ethylene Propylene Diene Monomer)
- Key Property: Ozone, UV, And Weather-resistant Bond
- Appearance: Dark Viscous Liquid
- Form: Liquid
- Bonding Temperature: 150 To 220°C
- Coating System: Single-coat Or Cover Cement Over Primer
- Diluents: Xylene Or Compatible Solvent
- Environmental Resistance: Excellent Ozone, UV, Weathering, And Hot Water Resistance
- Shelf Life: 1 Year In Closed Can Below 25°C
- Highlight: **EPDM rubber-to-metal bonding adhesive, outdoor automotive sealing adhesive, weather-resistant rubber adhesive**

Product Description

Thinkbond EP is a high-performance bonding adhesive specifically formulated for EPDM (Ethylene Propylene Diene Monomer) rubber compounds, addressing the unique bonding challenges presented by this weather-resistant elastomer. EPDM is the material of choice for outdoor automotive sealing applications due to its outstanding resistance to ozone, ultraviolet radiation, weathering, and hot water exposure. However, the same saturated polymer backbone that gives EPDM its exceptional environmental resistance also makes it one of the most challenging rubber compounds to bond to metal substrates. Thinkbond EP overcomes this inherent bonding difficulty through a specialized adhesive system engineered to achieve strong, durable adhesion with EPDM under vulcanization conditions, enabling manufacturers to produce reliable rubber-to-metal bonded sealing components that maintain their integrity through years of outdoor exposure.

The automotive industry relies extensively on EPDM for weatherstrips, door seals, window channel seals, trunk lid seals, and windshield gaskets that must maintain their sealing function and bonded attachment throughout the vehicle service life despite continuous exposure to sun, rain, temperature extremes, and road salts. Bond failure in these components results in water leaks, wind noise, and compromised cabin comfort that directly impact customer satisfaction and brand reputation. Thinkbond EP has been developed with this long-term durability requirement at its core, delivering bond strength and environmental resistance that enables EPDM sealing components to perform reliably over extended outdoor service intervals in the most demanding climatic conditions worldwide.

Key Features

- **EPDM Specialized Adhesion Technology:** Formulated specifically to overcome the inherent bonding difficulty of EPDM's saturated polymer backbone, achieving bond strengths that general-purpose rubber-to-metal adhesives cannot deliver with this challenging elastomer.
- **Outstanding Weather and Ozone Resistance:** Maintains full bond integrity under continuous outdoor exposure to ozone, ultraviolet radiation, temperature cycling, rain, humidity, and road salt conditions throughout the vehicle service life.
- **Durable Long-Term Bond Performance:** Delivers robust, reliable rubber-to-metal adhesion that withstands the mechanical stresses of repeated door closure cycles, thermal expansion and contraction, and vibration exposure in automotive body sealing applications.
- **Hot Water and Coolant Resistance:** Preserves bond strength under exposure to hot water and engine coolant in under-hood EPDM applications including radiator seals, heater hose connections, and coolant system gaskets.
- **Flexible Coating System Configuration:** Available for use as a single-coat bonding agent for general EPDM sealing applications or as a cover cement over Thinkbond 11H primer for maximum bond reliability in critical weather-exposed components.
- **Wide EPDM Grade Compatibility:** Proven bonding effectiveness across the full range of commercial EPDM grades with varying ethylene content, diene type, and molecular weight used in automotive sealing and general rubber product manufacturing.
- **Production-Friendly Application:** Compatible with standard brushing, spraying, and dipping application equipment used in automotive sealing component manufacturing, with straightforward viscosity adjustment and predictable drying characteristics.

Technical Specifications

Parameter	Specification
Product Code	Thinkbond EP
Product Type	EPDM specialized rubber-to-metal adhesive
Target Elastomer	EPDM (Ethylene Propylene Diene Monomer)
Appearance	Dark viscous liquid
Form	Liquid
Bonding Temperature Range	150 to 220°C
Coating System	Single-coat or cover cement over primer
Diluents	Xylene or compatible solvent
Environmental Resistance	Excellent ozone, UV, weathering, and hot water resistance
Shelf Life	1 year in closed can below 25°C

Applications

Thinkbond EP is purpose-designed for EPDM rubber-to-metal bonding applications where long-term weather resistance and outdoor durability are essential performance requirements. Primary application areas include automotive door weatherstrip and body seal assemblies, window channel and glass run channel seals, trunk lid and tailgate sealing systems, windshield and backlight gasket assemblies, sunroof seal systems, convertible top sealing components, and under-hood EPDM components including radiator seals and coolant system gaskets. Beyond automotive applications, Thinkbond EP is equally effective for construction industry EPDM expansion joint seals, marine hatch and portlight gaskets, outdoor electrical enclosure seals, and HVAC system sealing components. The adhesive is compatible with all standard metal and rigid plastic substrates used in sealing system manufacturing including steel, aluminum, and engineered thermoplastics. For maximum bond reliability in critical weather-exposed applications, a two-coat system with Thinkbond 11H primer is recommended.

Packaging & Quality Assurance

Thinkbond EP is supplied in standard 5kg/can and 20kg/pail packaging configurations with secure closures to maintain product quality. Customized packaging and automated dispensing solutions are available for high-volume automotive sealing component manufacturing operations. Comprehensive quality control testing performed on every production batch includes EPDM bond strength evaluation using standardized peel and shear test methods, ozone and UV accelerated weathering bond durability testing, hot water immersion bond integrity verification, viscosity and application consistency measurement, and shelf-life stability assessment. Manufactured under ISO 9001:2015 quality management standards, Thinkbond EP delivers the consistent specialized bonding performance that automotive sealing system manufacturers require. Shanghai LoreChem Co., Ltd. provides dedicated technical support including EPDM grade-specific bonding optimization and production process integration services.



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