Yellow Liquid Rubber To Metal Adhesive Single Coat Thermal Vulcanization Bonding Agent

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Thinkbond
- Model Number: 24S
- Minimum Order Quantity: None
- Price: 0-99usd
- Packaging Details: 20L/200L
- Delivery Time: 15-20 working days
- Payment Terms: T/T
- Supply Ability: 20T/month

Product Specification

- Form: Liquid
- Application: Rubber Bonding
- Type: Hot Vulcanization Adhesive
- Classification: Chemical
- Bond Strength: Strong
- Shelf Life: 12 Months
- Chemical Resistance: Strong
- Color: Yellow
- Highlight: **Yellow Liquid Rubber To Metal Adhesive**, **1.04g/cm3 Adhesive For Silicone Rubber To Metal** , **Thermal Vulcanization Rubber To Metal Adhesive**

Thinkbond 24S Rubber to Metal Bonding Agent High-performance Single-coat Adhesive

Product Description:

Thinkbond 24S is a high-performance single-coat adhesive used for thermal vulcanization bonding between various rubbers and metals and other substrates. It can also be used for the bonding of vulcanized rubber; and the bonding between rubber and fiber cords, fabrics such as cellulose, polyamide, polyester and glass.

Thinkbond 24S can be used in various molding vulcanization methods, including molding, transfer, injection, extrusion and other vulcanization methods. Vulcanization temperature range: 120ºC -230ºC. It also has excellent pre-curing resistance: 10 minutes at 160ºC without affecting performance, and even 30 minutes at 160ºC. The dry film will not be washed off during the mold transfer or injection process, nor will it cause mold contamination.

Thinkbond 24S is also suitable for post-cure bonding.

Thinkbond 24S is a heavy metal-free product.

Thinkbond 24S has the following features

1. High-performance adhesive, widely bonded to the following rubbers:

Natural rubber (NR), chlorohydrin rubber (ECO), styrene-butadiene rubber (SBR), chlorosulfonated polyethylene (CSM), chloroprene rubber (CR), acrylic rubber (ACM), butadiene rubber (BR), Carboxylated nitrile butadiene rubber (XNBR), isoprene rubber (IR), DuPont's ethylene acrylate rubber Vamac®, ethylene vinyl acetate elastomer EVA (EVM).

2.Technical characteristics

Excellent pre-curing resistance, can be baked at 160ºC for 30 minutes without affecting the bonding performance.

There is almost no mold contamination. During the injection process, the temperature can even exceed 200ºC.

Excellent heat resistance – bonded parts can withstand 200ºC

Excellent low temperature resistance – withstands -50ºC

According to the salt spray resistance test, it can withstand more than 1,000 hours without load and more than 400 hours with load, without corrosion.

Excellent dynamic and static fatigue resistance.

Excellent chemical resistance: solvent gasoline, unleaded gasoline, kerosene, fuel oil, mineral oil and synthetic oil. Esterified turbine oil at high temperatures, ethylene glycol and propylene glycol at high temperatures, acids and bases, hot water including boiling water.

TYPICAL PHYSICAL CHARACTERISTICS:

Appearance	Yellow liquid.
Non-volatile solids (1h @ 105°C)	23,0-28,0%
Density at 25°C	0,96-1.04 g/cm3
Viscosity # 4FORD cup at 25°C	60-100S
Diluents	Xylene or toluene
Bonding Temperature Range	150 to 230ºC
Shelf life	1 year (closed can below 25ºC)

HOW TO PREPARE THE SURFACE:

Prepare the metal surface properly by removing completely oil, grease and dirt.

Blasting the surface with grit blasting steel so that the surface roughness is greater than 15 µm.

For aluminum surfaces, we recommend the use of aluminum oxide as abrasive.

Clean again the substrate to remove dust from blasting residues.

Thinkbond 24S can be applied on surfaces treated by chemical processes such as galvanizing, phosphating, KTL.

Application:

A. Stir thoroughly: special polymers, resins, fillers, etc. are dissolved or dispersed in organic solvents. During the parking process, the dispersed part will settle to the bottom. It is very important to stir thoroughly before applying adhesive. It is best to use high-speed mechanical stirring. During use make sure to stir for 1-2 minutes every 10 minutes or so.

B. Dilution: Add diluent while stirring, otherwise it will cause partly incompatibility. In severe cases, it will cause polymer precipitation and even adhesive gel. For continuous production of dipping or spraying stirring must be maintained to ensure that the diluted adhesive is evenly mixed.

C1. Dip coating: For small-sized or simple-shaped metal parts can be dip-coated directly without dilution. But large-sized or complex-shaped parts must be diluted. Diluents include toluene, xylene, 1,1,1, trichloroethane, MEK, or a mixture of MEK and toluene. In most cases, in order to evaporate and dry quickly MEK can be used as a diluent.

C2. Conventional spraying: Commonly used diluents are toluene, xylene, or a 1:1 mixture of toluene and butanone. Dilution ratio (weight ratio): 1 part Thinkbond 924S and 1 part diluent (the two are mixed in a 1:1 volume ratio).

Nozzle size: 0.5-1.0 mm

Out put: 330–350 ml/min

Atomization pressure: 1.6-4 bar

Fluid pressure: 0.5-1.5 bar

C3. Airless spray: Thinkbond 24S can be sprayed airless and does not require dilution.

However, dilution with 25% (by volume) of toluene or xylene can improve the atomization effect. Heating online to 70ºC can also improve the atomization effect by reducing the viscosity.

Nozzle size: 0.25-0.50 mm

Pressure: 60-140 bar

The size of the nozzle and the pressure of the pump vary with the angle during spraying, the size of the metal parts, and production efficiency requirements.

C4. Electrostatic spraying: Thinkbond 24S can be sprayed by electrostatic spraying. Use special spray equipment, conductive solvents. Viscosity control is the same as conventional spraying

Conductivity: 90-100 microamps

C5. Brushing: Brushing usually does not require dilution. If dilution to the specified viscosity is required, toluene, xylene, or a mixture of toluene and MEK can be used.

Note: To clean spray equipment, you can use toluene, xylene, or 1,1,1 trichloroethane. Methyl ketone cannot be used.

D. Coating thickness control: No matter which method is used to apply glue, the most important thing is to apply the adhesive evenly to ensure optimal and consistent bonding strength.

When Thinkbond 924S is used as a single-coat adhesive, the dry film thickness is not less than 15 microns, and the environmental resistance is best when the dry film thickness is 25-35 microns. However, for general applications, the dry film thickness is 20 microns.

E. Drying: After applying adhesive it needs to be dried thoroughly. Insufficient drying will cause solvent to remain in the adhesive film. When bonded during vulcanization, it will break through the adhesive film and cause degumming. Usually, dry at room temperature for 30-45 minutes, or force dry at 80ºC for 5 minutes. If necessary, the temperature can be raised to 120ºC.

Note: When spraying, preheating Thinkbond 924S can reduce drying time. But the preheating temperature cannot exceed 70ºC.

Shanghai LoreChem Co., Ltd. was established in 2008. It is a high-tech enterprise which is dedicated to serve releasing products which involve semi-permanent release agent, anti-sticking, surface lubrication and thermal reactive adhesive. Shanghai LoreChem has been improving product quality for 15 years. The releasing products are mainly applied in rubber, polyurethane and composite industry. The brand of Lubekote for release agent and Thinkbond for adhesive have been registered in China. Both of them are well known in the industry.

Shanghai LoreChem 's business is all over the domestic and foreign high-end production enterprises by providing professional technical solutions and services. The company's long-term goal is to become one of the best suppliers of release agent in Asia.

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Shanghai Lorechem Company Limited

15901891635 export@lorechem.com shlorechem.com

Floor 2-3, Building 20, Hongxing International Plaza, Lane 1818, Lianhang Road, Pujiang, Shanghai