

GY-3660

Next-Generation Polymer based Anti-tack Agent

1 Concept of GY-3660

Conventional powder type anti-tack agents have insufficient tack resistance, and the problem is that the powder scatters and worsens the working environment.

LSC has developed GY-3660, a liquid polymer type anti-tack agent that has high anti-tack performance and does not scatter powder.

2 Expected effect and benefits to tire manufacturing of GY-3660

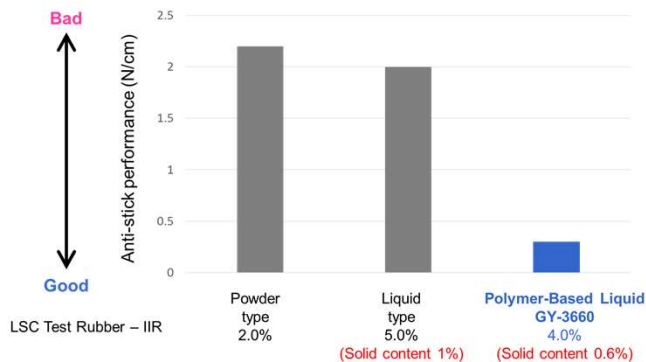
LSC has developed a liquid polymer-type anti-tack agent that has the following features:

【Feature ⇒ Expected effects】

- ① High anti-sticking performance ⇒ Low production defects and waste.
- ② No inorganic fillers and reduced foreign matter ⇒ Clean and clear Surface of rubber sheet.
- ③ No dusting, no flaking ⇒ Keeping the production area clean.
- ④ 100% soluble in water and there is no sedimentation in bottom of dip tank
⇒ Shortened mixing time and reduced frequency of cleaning equipment

3 Data and feature of GY-3660

① Anti-tack performance

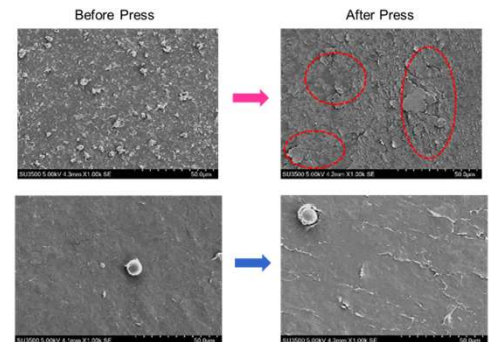


GY-3660 exhibited much superior anti-stick performance compared to powder and liquid type anti-tack agents.

② Surface appearance after treatment of anti-tack agent

Powder type film contains inorganic materials and is cracked easily in pressing, resulting in flaking, dusting and rubber sticking

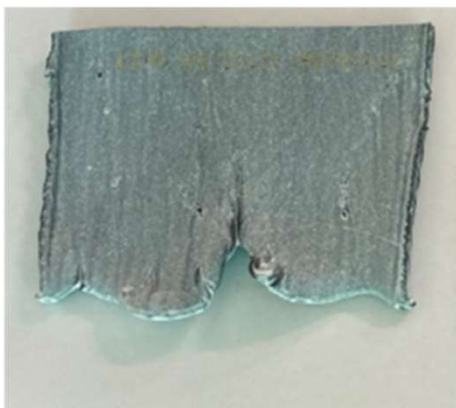
GY-3660 forms an elastic and consistent film that prevents crack, both before and after pressing



GY-3660's Polymer formulation forms an elastic film that prevents flaking

③ Rubber surface appearance

Rubber appearance using powder type



Rubber after being Dipped in Powder Type Anti-Tack (10%)

Black rubber appearance using GY-3660



Rubber after being Dipped in GY-3660 (8%)

- Clean surface and transparent coat
- Printed text is easier to see

- GY-3660's excellent wetting forms a consistent film that minimizes dust
- GY-3660 improves the appearance of rubber and ensures a clean work environment

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④ Foreign matter and Sedimentation

Foreign Matter

- LSC test methodology: Prepare dry residue. After kneading with rubber, count the residue on the surface
- Results:
 - Powder-type anti tack agent contained 2 pieces of foreign matter
 - **GY-3660 contained no foreign matter**

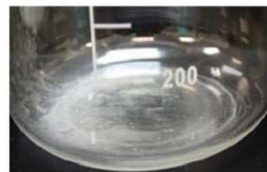
Sedimentation

- LSC test methodology: Disperse (45°C x 1hour) → 4 days at room temperature → decantation
- Results: **GY-3660 exhibited no sedimentation**

Powder Type



Polymer-based GY-3660



The polymer-based (non-inorganic) anti-tack agent contains no foreign matter and exhibits no sedimentation in the bottom of the dip tank.

⑤ Conventional VS. Polymer-based anti-tack agent

		Powder Type	Liquid Type	Polymer-Based Liquid
	Base material	Inorganic Minerals	Soaps	Water-Soluble Polymers
Advantage	Enabling Property			
Rubber sheets remain separate	Anti-Stick Performance	Good	Poor	Best
Clean work environment	Dusting and Flaking	Poor	Good	Best
Defects from foreign matter	Foreign matter quantity and hardness	Poor	Good	Best
Automation	Can be used with pump/flowmeter	No	Yes	Yes

LSC has developed the Polymer-based Liquid anti-tack agent to overcome the problems of conventional powder and liquid-type anti-tack agents

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Product information of GY-3660

Packing	Drum Can (Net 190 Kgs) IBC Container (Net 1,000 Kgs)
Appearance	White Liquid
pH	7.0 (25°C [77°F] ; as Undiluted) (representative value)
Viscosity BH type viscometer (20rpm x 30second)	Around 10,000 mPa-s (25°C) [77°F] (representative value)
Liquid Density	0.997 mg/ml (representative value)
Solid Content	Around 14.5% (representative value)
Recommended Dilution	4% to 6%

Drum Can



IBC Container



Place of Production:
Hyogo, Japan

LION SPECIALTY CHEMICALS CO., LTD.

1-3-28 Kuramae, Taito-ku, Tokyo 111-8644