

Dust Cleaning Tape

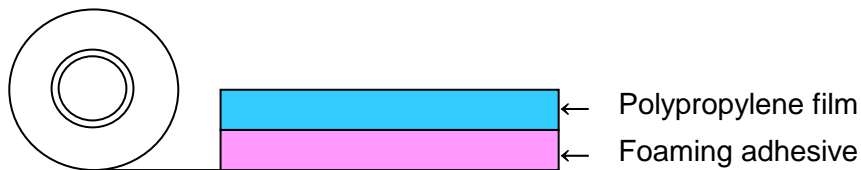
ELEP CLEANER ELEP-F Series

ELEP-F100/200/500I/1000/4000

Outline

Foreign material is a powerful enemy in the manufacturing process of a semiconductor, a liquid crystal reference material, and various electron devices. ELEP-F series is the adhesive cleaner that assuredly removes this kind of microscopic dust etc. With original foaming technology, it has good cushioning properties and gets used in unevenness well. These are designed mainly so that in-line use may be suited, and there are a transfer type and a direct type.

Construction



Features

Since it has moderate adhesiveness and cushioning properties and excels in the dust removing, a foreign material is firmly caught in a process.

Unlike a flat adhesive, adhesion for the target surface is weak and the run of a roll is stabilized.

Since Si is not contained in the composition of a tape, contamination nature is low.

The surface area to a foreign material is large, and the amount of capture of a foreign material is large.

Base material is the polypropylene film of good hand cuttability.

By removing the dirty field, it can be used in the beautiful condition at any time.

Application

Inline cleaning (transfer type with a machine)(direct type with a handy type)

Cleaning of the surface of various films and a glass plate

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Standard Size

Table-1

Product No.	Thickness (mm)	Max Width (mm)	Length (m)	Core Diameter (φ mm)
ELEP-F4000	0.10	650	10 · 20	38
ELEP-F1000	0.12	650		
ELEP-F500i	0.16	550		
ELEP-F200	0.19	550	10	
ELEP-F100	0.18	550		

*For other sizes, please contact us.

Properties

Table -2

Product No.	Adhesive strength*1 (N/25mm)	Dust removal rate*2 (%)
ELEP-F4000	3.90	50
ELEP-F1000	1.10	65
ELEP-F500i	0.50	65
ELEP-F200	0.24	65
ELEP-F100	0.04	37

*1:Measuring method: JIS Z 0237 : 2000

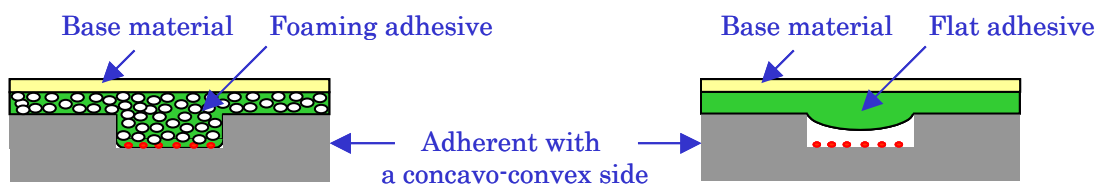
*2:It winds around a core so that an adhesive face may become outside. It rolls on the glass bead (particle diameter = about 200 micrometers) with which it covered uniformly using 2kg load. The weight of the glass bead transferred on the tape is measured.

Plasticity for irregular surface

The foaming adhesive enters deep, and removes the foreign material.

Table-3

	Depth of irregularity (micrometer)						
	30	35	40	50	60	80	100
ELEP-F1000	○	○	○	○	○	○	×
ELEP-F100	○	○	○	○	○	○	×
Flat adhesive	○	○	×	×	×	×	×



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Analysis result

Ion impurities in a tape
There is almost no extraction of ion.

Table-4 Ion impurities in a tape (μ g/g)

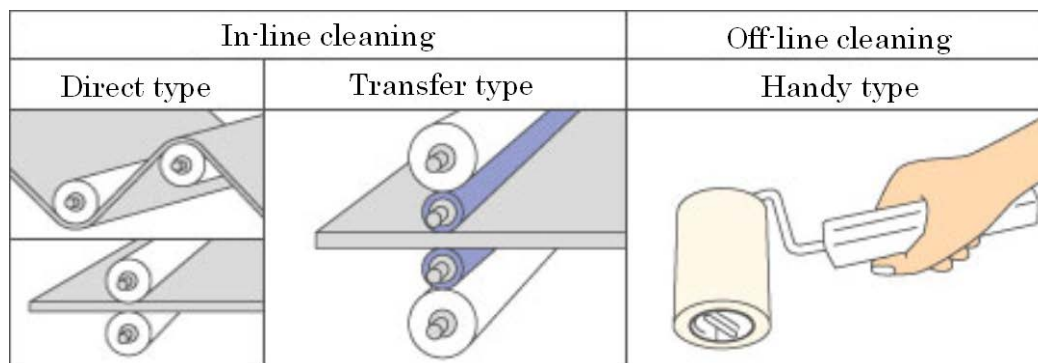
	Cl ⁻	NO ₂ ⁻	NO ₃ ⁻	SO ₄ ²⁻	PO ₄ ³⁻	Na ⁺	NH ₄ ⁺	K ⁺	Mg ²⁺	Ca ²⁺
ELEP-F4000	8.2	<0.40	5.2	<1.5	<0.40	0.16	1.2	<0.40	0.29	<0.54
ELEP-F1000	11	<0.40	4.9	<1.5	<0.40	0.22	1.3	<0.40	0.37	<0.77
ELEP-F500I	20	<0.40	5.1	<1.5	<0.40	0.23	1.2	<0.40	0.38	<0.56
ELEP-F200	50	<0.40	5.1	<1.5	<0.40	0.43	2.2	<0.40	0.44	0.96
ELEP-F100	49	<0.40	2.8	<1.5	<0.40	0.17	1.7	<0.40	0.39	1.1

*A tape is extracted in pure water under 100 degrees atmosphere for 2 hours.

The quantitative analysis of the amount of ion in the pure water is carried out in Ion chromatograph.

General dust cleaning

Dust cleaning is mainly categorized into three types depending on materials and processes.



Precautions

- Place the original roll of these products horizontally for storage to avoid deformation.
- Keep the products away from high temperatures and humidity, and store them in a dark cool place avoiding direct sunlight.

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