

Loudspeakers

Order code	Manufacturer code	Description
35-0150	n/a	W/PROOF 66MM MYLAR SPEAKER (RC)

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35-0150 W/PROOF 66MM MYLAR SPEAKER

Mylar Cone

2.Features of LUMIRROR* for general industrial applications

(1)Mechanical properties

Lumirror* boasts one of the highest ten side strength among all plastic films, and even a 0.025mm-thick Lumirror* sheet resists attempts to tear it by hand.This thin yet strong material enables electronic component manufacturers to produce high-performance products of smaller size and lighter weight.

(table1)

(2)Electrical properties

With its high dielectric strength and heat resistance, Lumirror* is an ideal electrical insulation material, widely used in motor, transformer, and capacitor applications.

(table1)

(3)High and low temperature resistance

"Lumirror's melting point is 260 °C , and it has a wide temperature range of-70 to +180 °C for operating and processing. These properties make "Lumirror' suitable for wide uses, and enable multiple steps of processing without compromising its properties.

(table1)

(4)Chemical resistance

Lumirror* is resistant against almost all solvents and chemicals excluding strong alkalis. It boasts one of the highest chemical resistance among all plastic films.

(table2)

(5)Moisture and water resistance

Lumirror's mechanical and chemical properties remain unchanged even when immersed in water, making it suitable for all industrial applications.

(table1)

(6)Low gas transmission rate

Lumirror* has a very low gas transmission rate compared to most other plastic films. This feature, combined with its strength and high/low temperature resistance. makes Lumirror* ideal as the base material in foodstuff packaging a plications where long-term storage is required, and in other applications requiring anti-oxidant properties.

(table1)

(7)No plasticizer added

Due to the absence of additives such as plasticizer. Lumirror* under normal temperature and humidity will not deteriorate in quality or become brittle over time.

<Table 1: Properties of Lumirror*>

Property	Item	Typical Values	Measurement Standard	
Mechanical properties	Tensile strength	25kg/mm ²	ASTM D882	
	Ultimate elongation	130%	ASTM D882	
	Tensile modulus	400kg/mm ²	ASTM D882	
	Initial tear strength	22kg/20mm	ASTM D827	
	Bursting strength	6kg/cm ²	ASTM D774	
	Impact strength	1000kg · cm/mm	-	
	Tear strength propagation	20g	ASTM D1938	
	Flex crack resistance	>120,000times	ASTM D2176	
Electrical properties	Dielectric strength	310KV/mm	ASTM D149	
	Dielectric constant	1KHz	3.3	ASTM D150
		1MHz	3.2	
	Dissipation factor	1KHz	0.2%	ASTM D150
		1MHz	1.0%	
	Volume resistivity		10 ¹⁸ Ω · cm	ASTM D257
Surface resistivity		10 ¹⁶ Ω	ASTM D257	
Physical properties	Density	1.40g/cm ³	ASTM D1505	
	Melting point	265°C	JIS K7121 (DSC method)	
	Applicable temperature range (for reference)	-70-+150°C	-	
	Moisture absorption	0.4%	Federal Test Method Sid No. 406	
	Hygroscopic expansion coefficient	1.2 × 10 ⁻⁵ cm/cm/%RH	-	
	Thermal expansion coefficient	1.5 × 10 ⁻⁵ cm/cm/°C	ASTM D696	
	Thermal shrinkage coefficient	1.3%(150°C,30min)	ASTM D1204	
	Water vapor transmission rate	6.9g/m ² 24hr/0.1mm	ASTM E96	
	Oxygen transmission rate	19cc(NTP)/m ² / 24hr/0.1mm/atm	ASTM D1434	
	Refractive index	1.66	ASTM D542	
Light transmission rate	85%	ASTM D1003		

<Table 2: Chemical Resistance of Lumirror* (Strength retention ratio % at 30C)>

Chemical	Immersion days			Result
	5 days	10 days	20 days	
Glacial acetic acid	91	90	91	Excellent
18% chloric acid	100	94	92	Excellent
60% sulfuric acid	100	91	99	Excellent
20% sulfuric acid	92	92	90	Excellent
Acetone	97	94	98	Excellent
Xylene	94	93	93	Excellent
Benzene	81	90	91	Excellent
35% chloric acid	97	85	84	Good
35% nitric acid	100	92	87	Good
10% sodium hydroxide	74	47	0	Poor
28% aqueous ammonia	0	0	0	Poor
12% aqueous ammonia	94	57	0	Poor