

# Denka

## Plastic Sheets for Carrier Tape - Denka Thermosheet EC / Clearen Sheet



Denka Thermosheet EC and Clearen Sheet have been used and reputed as standard materials for Carrier Tapes.  
Various grades available for semiconductors and electronic components.

**Merits** \*Suitable for various molding methods and shows good moldability and size accuracy.

\*Excellent sealing performance with covertapes. (Recommended: Denka Thermofilm ALS)

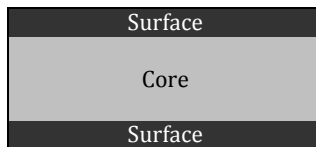
\*Stable conductivity to protect contents from static electricity. (EC-R • EC-M3 • EC-AP2)

\*Higher strength compared to PS base sheets for thinner carrier tapes. (EC-M3 • EC-AP2)

\*High transparency for easy recognition of contents.(EC-TP2)

\*Anti-static performance to prevent carrier sheet from dust. (EC-TP2)

### Structure



EC-R	EC-M3	EC-AP2	Clearen	ECTP2
Cond' PS	Cond' PS	Cond' PC	Modified PS	AS PS
PS	ABS	ABS		Modified PS
Cond' PS	Cond' PS	Cond' PC		AS PS

### Properties

\* Sheet properties and applications

Item	Unit	Method	EC-R	EC-M3	EC-AP2	Clearen	EC-TP2
Color	-	—	Black	Black	Black	Clear	Clear
Surface Resistivity	$\Omega / \square$	JIS K 7194	$10^4$ - $10^6$	$10^4$ - $10^6$	$10^4$ - $10^6$	$10^{14}$ <	$10^9$ - $10^{11}$
Haze	%	JIS K 7105	—	—	—	20	10
Tensile @ yield	MPa	JIS K 7127*	21	44	54	39	38
Tensile @ break	MPa		25	36	40	28	35
Modulus	MPa		1360	1730	2010	1520	1490

\*1999 Version (Correspond to the newest version of ISO)

Usage	Active Compo	LSI	◎	◎	◎		
		Discreet	○	○	◎		
	Passive Compo					◎	◎
	High Weight Devices		○	○	◎	○	○
	Vacuum Trays		○	○	◎		

<Note>

\* The above data are typical values obtained in our internal tests and not guaranteed specification

\* Thorough testing is required before start usage to confirm the product to meet applications and safety standards at customers' responsibilities.

Denka Co., Ltd <http://www.denka.co.jp/>

FUNCTIONAL FILMS DEPARTMENT

ELECTRONICS & INNOVATIVE PRODUCTS

1-1 Nihonashi-Muromachi 2-Chome, Chuo-ku, Tokyo

103-8338 Japan

TEL : +81-3-5290-5278、FAX : +81-3-5290-5306