

# CPMT Flexible H/C Specification

## 1. Outline

CPMT H/C CPI has excellent optical, mechanical properties, Plus, the product was made by continuous production process. It can be applied various flexible devices such as foldable, rollable and stretchable display electronics.

## 2. Properties of Flexible H/C on CPI

Properties	Test Method	Value	Result			GEN 3 Target	Remark
			RD-88	RD-111	RD-127		
Substrate		CPI	Bare thickness : 10 ~ 80 $\mu$ m			-	PEN is also applicable
Coating thickness		2 ~ 10 $\mu$ m	2~10 $\mu$ m	2~10 $\mu$ m	2~10 $\mu$ m	1 ~ 5 $\mu$ m	
Coating methods		Slot-Die, M/G	Slot-Die, M/G	Slot-Die, M/G	Slot-Die, M/G	R2R	R2R
Cross-cut test	K5600 -5-6	100/100	Pass	Pass	Pass	Pass	
Transmittance	JIS K-7361-1	> 90%	90,76%	90,71%	90,66%	> 90%	Haze meter
Haze	JIS K-7136	<1,0%	0,49%	0,49%	0,51%	<1,0%	Haze meter
Yellow index(YI)	JIS Z-8722	<1,0	0,40	0,43	0,41	<1,0%	Spectrophotometer
Pencil hardness	K5600 1kgf	> 4H	5H	6H	7H	9H	H/C side
Anti-abrasion	ASTM D1044	> 10 cycles (No scratch)	> 100 cycles (No scratch)	> 100 cycles (No scratch)	> 100 cycles (No scratch)	> 5,000 cycles (No scratch)	Steel wool #0000, 1,5kgf(1cm x 1cm)
Flexibility	CPMT	400K cycles	300K	250K	200K	> 400K	Inside radius : 1R (CPMT Bending machine)
Chemical resistance	ASTM D1308	Pass	Pass	Pass	Pass	Pass	
Contact angle(H <sub>2</sub> O)	ASTM D5946	> 100°	85°	92°	95°	> 115°	H/C layer