CPMT Super Hardness Coating(SHC) Specification

1. Outline

CPMT Super Hardness Coating(SHC) realizes mechanical properties of glass by coating on plastic such as PET.
SHC layer has excellent optical properties. Plus, so the coating layer has good flexibility, that can be coated by R2R process.

2. Properties of SHC on PET

Properties	Test Method	Value	Result			GEN 5 Target	Remark
			XD-15	XD-25	XD-35		
Substrate		PET	Bare thickness : 50 ~ 250㎛			-	Customer needs
Coating thickness		2 ~ 40㎛	15㎛	25㎛	35㎛	30㎛	
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%	91.01%	91.22%	91.14%	> 90%	Haze meter
Haze	JIS K-7136	< 1.0%	0.43%	0.42%	0.45%	< 1.0%	Haze meter
Yellow index(YI)	JIS Z-8722	< 1.0	0.41	0.41	0.42	< 1.0%	Spectrophotometer
Pencil hardness	K5600 1kgf	> 4H	4H	6H	9H	9H	H/C side
Anti-abrasion	ASTM D1044	> 100 cycles (No scratch)	100 cycles (No scratch)	100 cycles (No scratch)	100 cycles (No scratch)	> 5,000 cycles (No scratch)	Steel wool #0000, 1kgf(1cm x 1cm)
Flexibility	CPMT	400K cycles	300K	250K	200K	> 400K cycles	Inside radius : 1R (CPMT Bending machine)
Chemical resistance	ASTM D1308	Pass	Pass	Pass	Pass	Pass	
Contact angle(H_2O)	ASTM D5946	> 100°	103°	103°	103°	> 115°	H/C layer

Reference ONLY FOR ATEM FAIR 2020

Contact us if you need Technical Data Sheet