



Certificate of Analysis

Screen Protective Film - MXH

Company	Photodon, LLC	Michigan	USA	Phone 847-377-1185	Fax 877-255-2570	
Product Name	MXH - Lt Matte Anti-Glare		Product Type	D/S HC-PET	Date 2012/08/01	
Film Roll Size	104 cm x 200 meters (41 inches x 656 feet)					
Test Condition	Temp (°C) 23 ± 3		Humidity 25%			
	Test Items	Unit	Spec	Result	Test Method	
Material	Top Liner	50µm	PET			
	AG Resin	5 µm ± 2	UV 17% Cut			
	Substrate PET Film	100um	PET			
	Silicone Resin	30µm	Silicone			
	Release Liner	50µm	PET			
	Thickness without liners	135µm ± 2	.005"			
Optical Properties	Total Luminous Transmittance	%		85.8	ASTM-D1003-77	
	Gardner Haze	%	<10	6 ± 1	ASTM-D1003-77	
	Gloss Level @ 60°			92 ± 5% - Anti-Glare	ASTM-D2457-70	
	Rainbow Moire	-	Ver 2	Pass	-	
Thermal Properties	Curling	%	>90	91.7		
	Thermal Shrinkage	%	MD/TD<1.0	0.13/0.15		
	Retentivity	mm/hr	500g/100°C	<3.0	KSA1107	
	Heat Cycle		-20°C↔80°C 20 Cycles	OK		
Mechanical Properties	Burst Strength	MPA		1.75 MPA	ASTM D774-67	
	Dimensional Stability	%		0.2% Max Shrinkage	MD @ 120° C	
	Surface Abrasion	%	100 Cycles	No Damage	ASTM D1044 Steelwool (#0000) at 1 kg/cm ²	
	Pencil Hardness	Film only	H	≥ 3	3H @ 45°, 1 kg Load	ASTM D3363
		w/adhesive	H	≥ 3	3H @ 45°, 500g Load	ASTM D3363
	Peeling Strength	gf/25mm	180° Peel Off (After 30 Min)	30 ± 2	ASTM D6001 (12 > Competitor's Average)	
	RCA	-	No Scratch	Pass	-	
	Adhesion	-	100/100	Pass	ASTM D3359	
	Yellowness Index	-	<0.02	OK	ASTM D1925-70 (Japanesse AR raw material)	
	Anti-fouling Property					
Chemical Resistance	Resistant to:				DIN 42 115	
	Alcohols	Hydrocarbons				
	Dilute acids	Ketones				
	Dilute alkalis	Household cleaning agents				
	Esters					