

Photodon LLC						
Michigan		USA		Ph: 847-377-1185		
Email: sales@photodon.com		Product Name: AMC		Finished Material Type: 40% glare reduction, antimicrobial, oleophobic, clear finish		
Date 9-15-2022						
Film Roll Size: 1040mm (nominally)						
Tested Items		Thickness (µm)	Thickness (in)	Test Method	Notes	
Material	Top Liner	60	0.0023	Micrometer		
	4H Anti-microbial & Oleophobic Coating	5	0.0001	Micrometer		
	Rainbow Free-Optical PET Film	100	0.0039	Micrometer		
	Silicone Backing	25	0.0009	Micrometer		
	Release Liner	50	0.0019	Micrometer		
	Total Thickness	240 ± 10	0.0094	Micrometer		
	Thickness without liners	130	0.0051	Micrometer		
Tested Items		Unit	Spec	Result	Test Method	
Optical Properties	Total Light Transmittance	%	-	91.95	ASTM D1003-77 / JIS K 7361*	
	Haze	%	-	0.45	ASTM D1003-77 / JIS K 7136*	
	Gloss Level @ 60°	Gloss Units	-	170.7	ASTM D2457-7*	
	Rainbow Moire	-	-	Pass	Attached to glass, no liners	
Thermal Properties	Curling	%	>90	91.2	-	
	Thermal Shrinkage %	%	MD/TD< 1.0	0.13/0.15	-	
	Retentivity	mm/hr	-	< 3.0	KSA1107 500g/100°C	
	Temp/Humidity	°C/RH%	-	No Problem	85°C / 85% RH	
	Heat Cycle	-	-	No Problem	-40°C ↔ 80°C, 20 cycles	
Mechanical Properties	Contact Angle	°	±5	112	Contact Angle Meter	
	Oleophobic Coating Durability	°	±2	105	1500 cycles/Rubbing test stick @ 45°, 500g load/cm²* Rubber stick hardness:81 (Durometer A type)	
	Adhesion Stability	-	100/100	Pass	ASTM D3359 / JIS K 5600	
	Pencil Hardness	Film only	H	≥ 4	4H @ 45°, 500g load	ASTM D3363 / JIS K5600-5-4
		w/ adhesive	H	≥ 2	2H @ 45°, 350g load	ASTM D3363 / JIS K5600-5-4
	Scratch Resistance	-	-	No Damage	ASTM D1044 Steel wool (#0000)* 20 Laps @ 350g load/cm²	
	Peeling Strength	gf/inch	-	5.1 / 30 min	LLOYD LS1 180° peel, g/25mm, 300mm/min	
Chemical Resistance	Resistant to:					
	Alcohols - Dilute acids - Dilute alkalis - Esters - Hydrocarbons - Ketones			No Problem	DIN 42 115	

*After peeling off liners

Antimicrobial Activity (JIS Z 2801:2010E)							
Test microorganisms	Initial bacteria number (CFU/film)	Result(s)				Antimicrobial activity	
		Bacteria number after 24 hr at 35 ± 1 °C		Sample (CFU/film)		R	Percentage (%)*
		Control (CFU/film)					
Escherichia coli ATCC 8739	2.7 x 10 ⁶	8.3 x 10 ⁸	1st	9.1 x 10 ⁵	3.0	99.89%	
			2nd	1.7 x 10 ⁶	2.7	99.80%	
			3rd	2.3 x 10 ⁶	2.6	99.72%	
Staphylococcus aureus ATCC 6538	4.3 x 10 ⁵	1.2 x 10 ⁸	1st	2.2 x 10 ⁵	2.7	99.82%	
			2nd	8.9 x 10 ⁴	3.1	99.93%	
			3rd	1.3 x 10 ⁵	3.0	99.89%	