

Product Factory Inspection Report

Product model		WM7099		Date			2026/3/22	
Material Description	Surface coating	Anti-aging layer UV	PET Base Film	Insulation layer material	PET Base Film	Adhesive	Bottom Protective Film	Core production process
	Military-grade SR scratch-resistant coating	Full-spectrum UV-absorbing heat-insulating composite material	Optical-grade transparent substrate	Molecular-level TIN + WO3 hybrid heat insulation material (with 28% curing content)	Optical-grade transparent substrate	High-performance optical acrylate pressure-sensitive adhesive	Optical-grade release film	Precision coating dual process
Items		Standard	Devices	Unit	Standard value		Test value	Result
Structure	Thickness	GB/T 6672	Micrometer	um	62±5		62	√
Optical Performance	Visible Light Transmittance	GB/T 2680	LS160	%	68-72		71.7	√
	UV Rejection Rate	GB/T 2680	LS160	%	≥99		99.6	√
	IR Rejection Rate	GB/T 2680	LS160	%	≥97		97.5	√
	TSER	GB/T 2680	LS182	%	≥60		61.4	√
	Haze	ASTM D 1003	Haze Meter	/	≤1		0.98	√
Mechanical Performance	20min Initial Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥500		539	√
	24H Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥800		870.42	√
Physical Performance	Abrasion Resistance	ASTM D6037	Steel Wool Abrasion Tester	/	200gf/200times		Qualified	√
Appearance	Appearance	QCT1170	Inspection Lamp	/	Refer to the appearance inspection standard for automotive glass functional films		Qualified	√

Product Factory Inspection Report

Product model		WM5099		Date			2026/3/22	
Material Description	Surface coating	Anti-aging layer UV	PET Base Film	Insulation layer material	PET Base Film	Adhesive	Bottom Protective Film	Core production process
	Military-grade SR scratch-resistant coating	Full-spectrum UV-absorbing heat-insulating composite material	Optical-grade transparent substrate	Molecular-level TIN + WO3 hybrid heat insulation material (with 30% curing content)	Optical-grade transparent substrate	High-performance optical acrylate pressure-sensitive adhesive	Optical-grade release film	Precision coating dual process
Items		Standard	Devices	Unit	Standard value		Test value	Result
Structure	Thickness	GB/T 6672	Micrometer	um	62±5		63	√
Optical Performance	Visible Light Transmittance	GB/T 2680	LS160	%	48-52		48.6	√
	UV Rejection Rate	GB/T 2680	LS160	%	≥99		99.9	√
	IR Rejection Rate	GB/T 2680	LS160	%	≥97		98.1	√
	TSER	GB/T 2680	LS182	%	≥70		72.2	√
	Haze	ASTM D 1003	Haze Meter	/	≤1		0.8	√
Mechanical Performance	20min Initial Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥500		558	√
	24H Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥800		1010.2	√
Physical Performance	Abrasion Resistance	ASTM D6037	Steel Wool Abrasion Tester	/	200gf/200times		Qualified	√
Appearance	Appearance	QCT 1170	Inspection Lamp	/	Refer to the appearance inspection standard for automotive glass functional films		Qualified	√

Product Factory Inspection Report

Product model		WM3599HD		Date			2026/3/22	
Material Description	Surface coating	Anti-aging layer UV	PET Base Film	Insulation layer material	PET Base Film	Adhesive	Bottom Protective Film	Core production process
	Military-grade SR scratch-resistant coating	Full-spectrum UV-absorbing heat-insulating composite material	Optical-grade transparent substrate	Molecular-level TIN + WO3 hybrid heat insulation material (with 30% curing content)	Optical-grade transparent substrate	High-performance optical acrylate pressure-sensitive adhesive	Optical-grade release film	Precision coating dual process
Items		Standard	Devices	Unit	Standard value		Test value	Result
Structure	Thickness	GB/T 6672	Micrometer	um	62±5		63	√
Optical Performance	Visible Light Transmittance	GB/T 2680	LS160	%	33-37		35	√
	UV Rejection Rate	GB/T 2680	LS160	%	≥99		99.9	√
	IR Rejection Rate	GB/T 2680	LS160	%	≥97		97	√
	TSER	GB/T 2680	LS182	%	≥65		77	√
	Haze	ASTM D 1003	Haze Meter	/	≤1		0.8	√
Mechanical Performance	20min Initial Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥500		546	√
	24H Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥800		1123	√
Physical Performance	Abrasion Resistance	ASTM D6037	Steel Wool Abrasion Tester	/	200gf/200times		Qualified	√
Appearance	Appearance	QCT 1170	Inspection Lamp	/	Refer to the appearance inspection standard for automotive glass functional films		Qualified	√

Product Factory Inspection Report

Product model		WM2099HD		Date			2026/3/22	
Material Description	Surface coating	Anti-aging layer UV	PET Base Film	Insulation layer material	PET Base Film	Adhesive	Bottom Protective Film	Core production process
	Military-grade SR scratch-resistant coating	Full-spectrum UV-absorbing heat-insulating composite material	Optical-grade transparent substrate	Molecular-level TIN + WO3 hybrid heat insulation material (with 30% curing content)	Optical-grade transparent substrate	High-performance optical acrylate pressure-sensitive adhesive	Optical-grade release film	Precision coating dual process
Items		Standard	Devices	Unit	Standard value		Test value	Result
Structure	Thickness	GB/T 6672	Micrometer	um	62±5		63	√
Optical Performance	Visible Light Transmittance	GB/T 2680	LS160	%	18-23		20	√
	UV Rejection Rate	GB/T 2680	LS160	%	≥99		99.9	√
	IR Rejection Rate	GB/T 2680	LS160	%	≥97		97.5	√
	TSER	GB/T 2680	LS182	%	≥80		86	√
	Haze	ASTM D 1003	Haze Meter	/	≤1		0.8	√
Mechanical Performance	20min Initial Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥500		612	√
	24H Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥800		1187	√
Physical Performance	Abrasion Resistance	ASTM D6037	Steel Wool Abrasion Tester	/	200gf/200times		Qualified	√
Appearance	Appearance	QCT 1170	Inspection Lamp	/	Refer to the appearance inspection standard for automotive glass functional films		Qualified	√

Product Factory Inspection Report

Product model		WM1099HD		Date			2026/3/22	
Material Description	Surface coating	Anti-aging layer UV	PET Base Film	Insulation layer material	PET Base Film	Adhesive	Bottom Protective Film	Core production process
	Military-grade SR scratch-resistant coating	Full-spectrum UV-absorbing heat-insulating composite material	Optical-grade transparent substrate	Molecular-level TIN + WO3 hybrid heat insulation material (with 30% curing content)	Optical-grade transparent substrate	High-performance optical acrylate pressure-sensitive adhesive	Optical-grade release film	Precision coating dual process
Items		Standard	Devices	Unit	Standard value		Test value	Result
Structure	Thickness	GB/T 6672	Micrometer	um	62±5		63	√
Optical Performance	Visible Light Transmittance	GB/T 2680	LS160	%	8-13		13	√
	UV Rejection Rate	GB/T 2680	LS160	%	≥99		99.9	√
	IR Rejection Rate	GB/T 2680	LS160	%	≥97		96.8	√
	TSER	GB/T 2680	LS182	%	≥85		92	√
	Haze	ASTM D 1003	Haze Meter	/	≤1		0.8	√
Mechanical Performance	20min Initial Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥500		643	√
	24H Peel Strength	ISO 527-1:2019	Tensile Tester	gf/inch	≥800		1321	√
Physical Performance	Abrasion Resistance	ASTM D6037	Steel Wool Abrasion Tester	/	200gf/200times		Qualified	√
Appearance	Appearance	QCT 1170	Inspection Lamp	/	Refer to the appearance inspection standard for automotive glass functional films		Qualified	√