

Technical Data Sheet

- Model : AD L9R
- Type : Lenti_300 Pitch
- Resin : PMMA [Poly(methyl methacrylate)]
- Thickness : 2.0mm ~6.0mm
- Purpose of use: Light Guide Plate

Manufacturing Specifications

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Thickness	Sheet	mm	MICROMETER	Basic dimension±0.05
Width	Sheet	mm	Tape measure	Basic dimension + 3.0
Length	Sheet	mm	Tape measure	Basic dimension + 6.0
Warp	Sheet	mm	Thickness gauge	Cap : +0.3mm / Cup : -0.5mm

Optical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Light Transmittance	Sheet	%	ISO 13468-1	93
HAZE	Sheet	%	ISO 14782	0.2

Thermal Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Melt Flow Index	230℃/3.8kg	g/10min	ISO 1133	2.0
VICAT Softening Point	B/50	℃	ISO 306	112
Deflection Temperature	1.8Mpa	℃	ISO 75	100
CTE	-	1/℃	ASTM 696	6X10 ⁻⁵

Mechanical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Charpy Impact Strength	Notched	KJ/m ²	ISO 179	1.5
Rockwell Hardness	M scale	-	ISO 2039-2	101
Tensile Strength at break	5mm/mm	Mpa	ISO 527	77
Flexural Modulus	1mm/mm	Mpa	ASTM D 790	1,470 (kg/cm ²)
Flexural Strength	2mm/mm	Mpa	ASTM D 790	35,500 (kg/cm ²)

General Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Density	-	g/m ³	ISO 1183	1.19
Water Articles	24hr	%	ASTM D570	0.2
Flammability UL94	1.5mm	Class	ICE 60695-11-10	HB

Technical Data Sheet

- Model : AD T99
- Type : Lenti_900 Pitch
- Resin : PMMA [Poly(methyl methacrylate)]
- Thickness : 5.0mm
- Purpose of use: Triangle Light Guide Plate

Manufacturing Specifications

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Thickness	Sheet	mm	MICROMETER	Basic dimension±0.10
Width	Sheet	mm	Tape measure	Basic dimension + 3.0
Length	Sheet	mm	Tape measure	Basic dimension + 6.0
Warp	Sheet	mm	Thickness gauge	± 2.0mm

Optical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Light Transmittance	Sheet	%	ISO 13468-1	93
HAZE	Sheet	%	ISO 14782	0.2

Thermal Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Melt Flow Index	230℃/3.8kg	g/10min	ISO 1133	2.0
VICAT Softening Point	B/50	℃	ISO 306	112
Deflection Temperature	1.8Mpa	℃	ISO 75	100
CTE	-	1/℃	ASTM 696	6X10 ⁻⁵

Mechanical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Charpy Impact Strength	Notched	KJ/m ²	ISO 179	1.5
Rockwell Hardness	M scale	-	ISO 2039-2	101
Tensile Strength at break	5mm/mm	Mpa	ISO 527	77
Flexural Modulus	1mm/mm	Mpa	ASTM D 790	1,470 (kg/cm ²)
Flexural Strength	2mm/mm	Mpa	ASTM D 790	35,500 (kg/cm ²)

General Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Density	-	g/m ³	ISO 1183	1.19
Water Articles	24hr	%	ASTM D570	0.2
Flammability UL94	1.5mm	Class	ICE 60695-11-10	HB

Technical Data Sheet

- Model : AD L9R
- Type : Lenti_160 Pitch
- Resin : PMMA [Poly(methyl methacrylate)]
- Thickness : 1.0mm ~2.5mm
- Purpose of use: Light Guide Plate

Manufacturing Specifications

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Thickness	Sheet	mm	MICROMETER	Basic dimension±0.03
Width	Sheet	mm	Tape measure	Basic dimension + 3.0
Length	Sheet	mm	Tape measure	Basic dimension + 6.0
Warp	Sheet	mm	Thickness gauge	Cap : +0.3mm / Cup : -0.5mm

Optical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Light Transmittance	Sheet	%	ISO 13468-1	93
HAZE	Sheet	%	ISO 14782	0.2

Thermal Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Melt Flow Index	230℃/3.8kg	g/10min	ISO 1133	2.0
VICAT Softening Point	B/50	℃	ISO 306	112
Deflection Temperature	1.8Mpa	℃	ISO 75	100
CTE	-	1/℃	ASTM 696	6X10 ⁻⁵

Mechanical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Charpy Impact Strength	Notched	KJ/m ²	ISO 179	1.5
Rockwell Hardness	M scale	-	ISO 2039-2	101
Tensile Strength at break	5mm/mm	Mpa	ISO 527	77
Flexural Modulus	1mm/mm	Mpa	ASTM D 790	1,470 (kg/cm ²)
Flexural Strength	2mm/mm	Mpa	ASTM D 790	35,500 (kg/cm ²)

General Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Density	-	g/m ³	ISO 1183	1.19
Water Articles	24hr	%	ASTM D570	0.2
Flammability UL94	1.5mm	Class	ICE 60695-11-10	HB

Technical Data Sheet

- Model : AD 999
- Type : Normal Plate
- Resin : PMMA[Poly(methyl methacrylate)]
- Thickness : 1.0mm ~10.0mm
- Purpose of use: Industrial Sheet

Manufacturing Specifications

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Thickness	Sheet	mm	MICROMETER	Less than 3mm±0.05 More than 3mm±0.10
Width	Sheet	mm	Tape measure	Basic dimension + 3.0
Length	Sheet	mm	Tape measure	Basic dimension + 6.0
Warp	Sheet	mm	Thickness gauge	± 2.0mm

Optical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Light Transmittance	Sheet	%	ISO 13468-1	93
HAZE	Sheet	%	ISO 14782	0.2

Thermal Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Melt Flow Index	230℃/3.8kg	g/10min	ISO 1133	2.0
VICAT Softening Point	B/50	℃	ISO 306	112
Deflection Temperature	1.8Mpa	℃	ISO 75	100
CTE	-	1/℃	ASTM 696	6X10 ⁻⁵

Mechanical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Charpy Impact Strength	Notched	KJ/m ²	ISO 179	1.5
Rockwell Hardness	M scale	-	ISO 2039-2	101
Tensile Strength at break	5mm/mm	Mpa	ISO 527	77
Flexural Modulus	1mm/mm	Mpa	ASTM D 790	1,470 (kg/cm ²)
Flexural Strength	2mm/mm	Mpa	ASTM D 790	35,500 (kg/cm ²)

General Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Density	-	g/m ³	ISO 1183	1.19
Water Articles	24hr	%	ASTM D570	0.2
Flammability UL94	1.5mm	Class	ICE 60695-11-10	HB

Technical Data Sheet

- Model : AD 999
- Type : NBPC
- Resin : PMMA[Poly(methyl methacrylate)]
- Thickness : 0.7mm ~1.0mm
- Purpose of use: Light Guide Plate

Manufacturing Specifications

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Thickness	Sheet	mm	MICROMETER	Basic dimension±0.02
Width	Sheet	mm	Tape measure	Basic dimension + 3.0
Length	Sheet	mm	Tape measure	Basic dimension + 6.0
Warp	Sheet	mm	Thickness gauge	Cup Type Before Aging ≤0.5 mm After Aging ≤1.0 mm Cap Type 0 mm

Optical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Light Transmittance	Sheet	%	ISO 13468-1	93
HAZE	Sheet	%	ISO 14782	0.2

Thermal Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Melt Flow Index	230℃/3.8kg	g/10min	ISO 1133	2.0
VICAT Softening Point	B/50	℃	ISO 306	112
Deflection Temperature	1.8Mpa	℃	ISO 75	100
CTE	-	1/℃	ASTM 696	6X10 ⁻⁵

Mechanical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Charpy Impact Strength	Notched	KJ/m ²	ISO 179	1.5
Rockwell Hardness	M scale	-	ISO 2039-2	101
Tensile Strength at break	5mm/mm	Mpa	ISO 527	77
Flexural Modulus	1mm/mm	Mpa	ASTM D 790	1,470 (kg/cm ²)
Flexural Strength	2mm/mm	Mpa	ASTM D 790	35,500 (kg/cm ²)

General Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Density	-	g/m ³	ISO 1183	1.19
Water Articles	24hr	%	ASTM D570	0.2
Flammability UL94	1.5mm	Class	ICE 60695-11-10	HB

Technical Data Sheet

- Model : AD V9R
- Type : Lenti_50 Pitch
- Resin : PMMA [Poly(methyl methacrylate)]
- Thickness : 0.5mm ~0.6mm
- Purpose of use : V-Cut Light Guide Plate

Manufacturing Specifications

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Thickness	Sheet	mm	MICROMETER	Basic dimension±0.02
Width	Sheet	mm	Tape measure	Basic dimension + 3.0
Length	Sheet	mm	Tape measure	Basic dimension + 6.0
Warp	Sheet	mm	Thickness gauge	Cup Type Before Aging ≤0.5 mm After Aging ≤1.0 mm Cap Type 0 mm

Optical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Light Transmittance	Sheet	%	ISO 13468-1	93
HAZE	Sheet	%	ISO 14782	0.2

Thermal Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Melt Flow Index	230℃/3.8kg	g/10min	ISO 1133	2.0
VICAT Softening Point	B/50	℃	ISO 306	112
Deflection Temperature	1.8Mpa	℃	ISO 75	100
CTE	-	1/℃	ASTM 696	6X10 ⁻⁵

Mechanical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Charpy Impact Strength	Notched	KJ/m ²	ISO 179	1.5
Rockwell Hardness	M scale	-	ISO 2039-2	101
Tensile Strength at break	5mm/mm	Mpa	ISO 527	77
Flexural Modulus	1mm/mm	Mpa	ASTM D 790	1,470 (kg/cm ²)
Flexural Strength	2mm/mm	Mpa	ASTM D 790	35,500 (kg/cm ²)

General Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Density	-	g/m ³	ISO 1183	1.19
Water Articles	24hr	%	ASTM D570	0.2
Flammability UL94	1.5mm	Class	ICE 60695-11-10	HB

Technical Data Sheet

- Model : AM L9R
- Type : Lenti _160Pitch
- Resin : MS (Methylmethacrylate-styrene)
- Thickness : 2.0mm
- Purpose of use: Light Guide Plate

Manufacturing Specifications

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Thickness	Sheet	mm	MICROMETER	Basic dimension±0.05
Width	Sheet	mm	Tape measure	Basic dimension + 3.0
Length	Sheet	mm	Tape measure	Basic dimension + 6.0
Warp	LGP Size	mm	Thickness gauge	Cap : +0.3mm / Cup : -0.5mm

Optical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Light Transmittance	Sheet	%	ISO 13468-1	91
HAZE	Sheet	%	ISO 14782	0.2

Thermal Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Melt Flow Index	230℃/3.8kg	g/10min	ISO 1133	8.7
VICAT Softening Point	B/50	℃	ISO 306	94.4

Mechanical Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Charpy Impact Strength	Notched	KJ/m ²	ISO 179	1.3
Rockwell Hardness	M scale	-	ISO 2039-2	76
Tensile Strength at break	5mm/mm	Mpa	ISO 527	64
Flexural Modulus	1mm/mm	Mpa	ASTM D 791	2.8 ~ 2.6
Flexural Strength	2mm/mm	Mpa	ASTM D 791	11.3

General Property

PROPERTY	CONDITION	UNITS	TEST METHOD	VALUE
Density	-	g/m ³	ISO 1183	1.111
Water Articles	24hr	%	ASTM D570	0.1
Flammability UL94	1.5mm	Class	ICE 60695-11-10	HB