

# LUMEX<sup>®</sup>

LUMEX<sup>®</sup>A LUMEX<sup>®</sup>G

THE CHOICE IS CLEAR.

THE COMPLETE RANGE FOR TRANSPARENT AND TRANSLUCENT APPLICATIONS.



**3A**  
COMPOSITES



THE BEST FOR FLAT AND COLD BENDING APPLICATIONS.


**LUMEX®** is the new trade mark for the flawlessly extruded A-PET and PET-G thermoplastic polyester sheets offered by 3A Composites. 3A Composites thus significantly enlarges its product portfolio with transparent and translucent sheet material.

## PRODUCT

LUMEX® A are premium quality amorphous polyethylene terephthalate (A-PET) sheets. They are ideally suited to flat and arched applications. LUMEX® A shows extremely good printability with UV curing inks and is fire rated – ‘difficult-to-ignite’ and is suitable for use in the food industry. It is also extremely impact resistant even at sub-zero temperatures and shows excellent weather-resistance.

## LUMEX® A – AT A GLANCE

LUMEX® A sheets offer a unique combination of excellent properties and occupy an unrivalled ecological position amongst fully transparent and translucent sheet materials.

- 100% recyclable within its own waste category 1 (PET) 
- Tough and hard with high impact strength also at sub-zero temperatures down to -20°C
- Impeccable optical properties with a light transmission of nearly 90% for non-tinted types

- Good outdoor durability up to 4 years even for standard types
- Flame retardant rated ‘difficult-to-ignite’
- Very high chemical resistance against cleaning agents, mineral oils, solvents
- Easy and fast to convert
- Good printability thanks to optimal adhesion of UV curing inks

## PRODUCT APPLICATIONS

- Flexible poster coverings
- Unbreakable, retro-printed translucent signs
- Small to medium sized displays
- Slatwall magazine racks
- Cold food storage elements
- Protective glazing for machinery

## PROTECTIVE FILM

- Front: blue transparent / reverse: white opal

## TOLERANCES

Thicknesses	up to 1.5 mm: ±10% 1.5 to 3.0 mm: ±6% over 3.0 mm: ±5%
Widths	-0 / +3 mm
Lengths	-0 / +5 mm
Formats cut to size off line	-0 / +2 mm

## PRODUCT RANGE

Product	Standard formats (WxL)	Thickness mm							
		0.8	1	1.5	2	3	4	5	6
clear-transparent	1250 x 2050 mm	■	■	■	■	■			
clear-transparent ar (anti reflective)		■	■	■	■				
opal 30%			■	■	■				
clear-transparent	1250 x 2500 mm					■		■	
clear-transparent	2050 x 3050 mm	■	■	■	■	■	■	■	■
clear-transparent ar (anti reflective)		■	■	■	■	■			
opal 30%			■	■	■	■			
white - black	2050 x >1000 - 6050 mm		□	□	□	□	□	□	□
bronze			□	□	□	□	□	□	□
others translucent				□	□	□	□	□	□
others opaque				□	□	□	□	□	□
clear-transparent			□	□	□	□	□	□	□
clear-transparent ar (anti reflective)			□	□	□	□	□	□	□
opal 30%			□	□	□	□	□	□	

■ Standard formats □ On request



THE BEST FOR HOT LINE BENDING AND ELABORATE VACUUM FORMING.



## PRODUCT

LUMEX® G is the proven brand on the market for premium quality modified polyethylen terephthalate (PET-G). LUMEX® G is the best choice for thermoforming and hot line bending applications. LUMEX® G sheets are flame retardant rated 'difficult-to-ignite', approved for use in the food industry and show good impact resistance. They are also excellent to print with UV curing inks and fast, convenient to convert.

## LUMEX® G – AT A GLANCE

LUMEX® G sheets feature enhanced thermoforming capabilities as they do not crystallize. Vacuum forming requires no pre-drying and is therefore significantly quicker and more cost-effective. Extremely high contour accuracy can be obtained at lower temperatures compared to traditional transparent materials.

- Excellently suited to hot line bending and vacuum forming without pre-drying (saves time and energy)
- Doesn't require pre-drying – massive energy savings
- Simplified bonding with solvent based adhesives

- Good resistance against breakage at low temperatures
- Weatherability up to 3 years even for standard types
- Flame retardant rated 'difficult-to-ignite'
- Good to print with UV curing inks
- Available also in widths of 2050 mm down to 10 mm thickness

## PRODUCT APPLICATIONS

- Thermoformed fronts for vending machines
- Vacuum-formed trays for storage and manufacturing
- Medical appliances
- Retro-printed translucent signs
- Three-dimensional POS/POP items

## PROTECTIVE FILM

- Front: clear transparent / reverse: white opal

## TOLERANCES

Thicknesses	up to 1.5 mm: ±10% 1.5 to 3.0 mm: ±6% over 3.0 mm: ±5%
Widths	-0 / +3 mm
Lengths	-0 / +5 mm
Formats cut to size off line	-0 / +2 mm

## PRODUCT RANGE

Product	Standard formats (WxL)	Thickness mm									
		0.8	1	1.5	2	3	4	5	6	8	10
clear-transparent	1250 x 2050 mm		■	■	■	■					
clear-transparent	1250 x 2500 mm		■		■	■					
clear-transparent clear-transparent uv opal 30%	2050 x 3050 mm	■	■	■	■	■	■	■	■	■	■
white - black bronze others translucent others opaque clear-transparent clear-transparent uv opal 30%	2050 x >1000 - 6050 mm	□	□	□	□	□	□	□	□	□	□

■ Standard formats □ On request

## PHYSICAL PROPERTIES

CHARACTERISTIC	TEST METHOD	UNIT	LUMEX <sup>®A</sup>	LUMEX <sup>®G</sup>
			VALUE	VALUE
Density	DIN EN ISO 1183-1	g/cm <sup>3</sup>	1.33	1.27
Tensile strength	DIN EN ISO 527-1/2	MPa	>55	>45
Flexural modulus	EN ISO 178	MPa	2500	2000
Impact strength, unnotched	ISO 179	kJ/m <sup>2</sup>	no break	no break
Surface hardness	ISO 868	Shore D	50	40
Max. service temperature	–	°C	65	65
Coefficient of linear expansion	DIN EN ISO 75-2	mm/(m·K)	0.05	0.05
Light transmission	DIN 5036	%	>86	>84
Fire classification	EN 13 501-1	Europe	B – s1 – d0	B – s1 – d0

LUMEX<sup>®</sup> sheets are produced under stringent environmental and quality control procedures. This ensures the consistently high quality of the product.

### ROHS DIRECTIVE

LUMEX<sup>®</sup> sheets meet the requirements of the RoHS-2 directive of the European Union on the restriction of hazardous substances.

### REACH REGULATION

LUMEX<sup>®</sup> sheets meet the requirements of the current version of the European Union chemicals regulation (REACH). In particular, LUMEX<sup>®</sup> sheets do not contain any of the substances which are listed in the current version of the ECHA Candidate List of "Substances of Very High Concern" (SVHC).