

LUMEX[®]

LUMEX[®]A LUMEX[®]G

THE CHOICE IS CLEAR.

THE COMPLETE RANGE FOR TRANSPARENT AND TRANSLUCENT APPLICATIONS.





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 is the newest brand on the market for premium quality amorphous polyethylen terephthalate (A-PET). It is the best choice for flat and arched applications. LUMEX® A shows extremely good printability with UV curing inks and is fire rated ,difficult-to-ignite' as well as approved for direct food contact. Moreover, it is extremely impact resistant and shows excellent outdoor durability.

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 
- 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

- Approved by FDA/BGA for direct contact with foodstuff and medical applications
- 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 covers
- 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%
Lengths	-0 / +3%
Formats cut in line	< 1000 mm: ±1.5 mm > 1000 mm: -0 / +3%
Formats cut to size off line	±1 mm

PRODUCT RANGE

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



THE BEST FOR HOT LINE BENDING AND ELABORATE VACUUM FORMING.



PRODUCT

LUMEX® G is the newest 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 direct food contact 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 don't crystallize. Vacuumforming can be done without pre-drying and significantly shorter than the usual cycle times. Extremely high contour accuracy can be obtained at lower temperatures compared to traditional transparent materials.

- Enhanced thermoforming capabilities with shorter than usual cycle times
- 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
- Approved by FDA/BGA for direct contact with foodstuff and medical applications
- Flame retardant rated 'difficult-to-ignite'
- Good to print with UV curing inks
- Available also in widths of 2050 mm down to 1 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%
Lengths	-0 / +3%
Formats cut in line	< 1000 mm: ±1.5 mm > 1000 mm: -0 / +3%
Formats cut to size off line	±1 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 clear-transparent uv opal 30%	2050 x 3050 mm	■	■	■	■	■	■	■	■	■	■
white - black bronze others translucent others opaque	2050 x >1000 - 6050 mm		□	□	□	□	□	□	□	□	

■ Standard formats □ On request

PHYSICAL PROPERTIES

CHARACTERISTIC	TEST METHOD	UNIT	LUMEX®A	LUMEX®G
			AVERAGE RESULT	AVERAGE RESULT
Density	DIN EN ISO 1183-1	g/cm ³	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 ²	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 rating	DIN 41021-1 BS 476 Part 7 NF F16-101 & 102	Germany UK France	B1 Class 1Y M2	B1 Class 1Y M2

LUMEX® sheets are produced under stringent environmental and quality control procedures. Thus, the consistent quality of the product is achieved.

ROHS DIRECTIVE

LUMEX® sheets meet the requirements of the RoHS/ WEEE directives of the European Union on the restriction of hazardous substances.

REACH REGULATION

LUMEX® sheets meet the requirements of the current version of the European Union chemicals regulation (REACH). In particular, LUMEX® 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).



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