

LUMEX[®]

LUMEX[®]A LUMEX[®]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.

PRODUCT

LUMEX® A are premium quality amorphous polyethylene terephthalate (A-PET) sheets. They are ideally suited to flat and cold bending applications. LUMEX® A shows good printability with UV curing inks and is flame retardant rated 'difficult-to-ignite' as well as suitable for food applications. Moreover, it is extremely impact resistant also at temperatures down to -20°C and shows good outdoor durability in the variant with UV protection.

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 in the variant with UV protection
- Flame retardant rated B – s1, d0 according to EN 13501-1 (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 | | | | | | | | |
|---|------------------------|--------------|-----|---|-----|---|---|---|---|---|
| | | 0.5 | 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 | 1250 x 2500 mm | | | | | | ■ | | ■ | |
| clear-transparent clear-transparent AR (anti reflective) opal 30% | 2050 x 3050 mm | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| white - black bronze others translucent others opaque clear-transparent clear-transparent AR (anti reflective) opal 30% | 2050 x >1250 - 6050 mm | | | □ | □ | □ | □ | □ | □ | □ |
| clear-transparent | 2050 x >1250 - 4000 mm | □ | | | | | | | | |

■ 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
- Good outdoor durability in the variant with UV protection

- Flame retardant rated B – s1, d0 according to EN 13501-1 (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

- Product versions clear transparent and opal:
front side: transparent / reverse side: white opal
- Product version black:
front side: transparent / reverse side: transparent

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% black | 2050 x 3050 mm | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| white - black bronze others translucent others opaque clear-transparent clear-transparent UV opal 30% opal 30% UV | 2050 x >1250 - 6050 mm | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ |

■ Standard formats □ On request

PHYSICAL PROPERTIES

| CHARACTERISTIC | TEST METHOD | UNIT | LUMEX®A | LUMEX®G |
|---------------------------------|--------------------|-------------------|------------|------------|
| | | | VALUE | VALUE |
| 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 classification | EN 13501-1 | Europe | B – s1, d0 | B – s1, d0 |

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

ROHS DIRECTIVE

LUMEX® sheets meet the requirements of the RoHS-2 directive 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).