

Axpet® clear 099 AR. Polyester sheet.

	Typical values	Units	Test method
PHYSICAL			
Density	1.33	g/cm ³	DIN 53479
Moisture absorption: 23°C, 24h immersion (3 mm)	0.2	%	
Index of refraction 20°C	1.57		DIN 53491
Lighttransmission (2 mm sheet)	85	%	DIN 5036
MECHANICAL			
Tensile stress at yield	56	N/mm ²	DIN 53455 ⁽¹⁾
Elongation at yield	4	%	DIN 53455 ⁽¹⁾
Tensile strength	25	N/mm ²	DIN 53455 ⁽¹⁾
Elongation at break	> 100	%	DIN 53455 ⁽¹⁾
Tensile modulus of elasticity	2400	N/mm ²	DIN 53457 ⁽²⁾
Limiting flexural stress	77 - 83	N/mm ²	DIN 53452
Impact strength:			
- Izod notched (4 mm)	40	J/m	ASTM D256
- Instrumented impact (4 mm) at Fmax	28	J	ASTM D3763
THERMAL			
Glass transition temperature	81	°C	
Thermal conductivity	0.25	W/m°C	DIN 52612
Coeff. of linear thermal expansion	0.050	mm/m°C	
Heat deflection temperature under load acc. to ISO/R75			ISO 75
- method A: 1,81 N/mm ²	63	°C	
- method B: 0,45 N/mm ²	70	°C	
Max. service temperature in air ⁽³⁾	65	°C	
Min. service temperature	-20	°C	
FIRE BEHAVIOUR ⁽⁴⁾			
France			
0,8 to 4 mm sheet	M2	rating	NFP 92-501&5

- anti-reflective
- good impact resistance
- high optical clarity

Description

Axpet® clear 099 AR is a transparent thermoplastic polyester sheet with a matt finish on one side. This side offers good clarity in combination with an anti-reflective appearance f.e. picture glazing. Axpet® clear 099 AR sheet has a high impact resistance, good fire behaviour and chemical resistance. Axpet® clear 099 AR sheet is fully recyclable and does not contain any halogens. It can be screenprinted on the glossy side, and offers ease of machining.

Applications

All types of poster protections, displays, price tag holders, poster frames, and other promotional objects.

Availability

Axpet® clear 099 AR sheet is available in the thickness range of 0.8 up to 2 mm.

Standard size : 1250 x 2050 mm
2050 x 3050 mm

Other sizes and thicknesses on request.

The above-mentioned values are typical values at 23°C, unless otherwise stated. They are intended as a guideline for material determination. They cannot be used for drawing up material specifications. They do not discharge the user of effecting his own tests in order to determine whether a material is suitable for the application.

⁽¹⁾ Test speed: 50 mm/min.

⁽²⁾ Test speed: 5 mm/min.

⁽³⁾ Temperature resistance over a period of several months to several years.

The given temperature limits are determined by the thermal-oxidative degradation which takes place and causes a fall-off in properties (embrittlement). Besides, as for all thermoplastics, the maximum service temperature depends essentially on the duration and the magnitude of the mechanical stress to which the material is subjected.

⁽⁴⁾ These ratings are not intended to reflect hazards presented by the material under actual fire.

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Impact strength

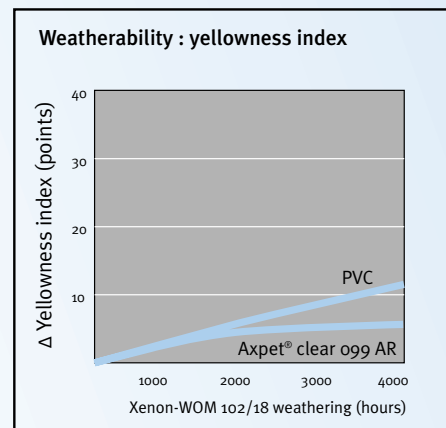
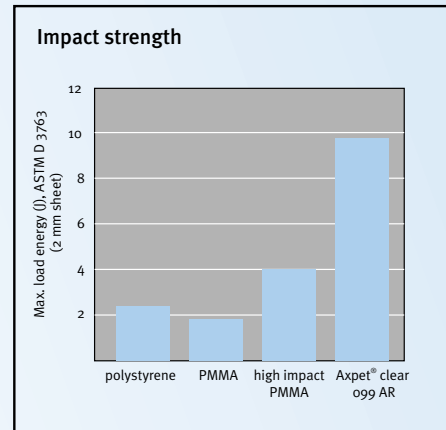
As one of the toughest transparent materials known today, Axpet® clear 099 AR sheet features extreme impact strength, also at temperatures below zero. It clearly outperforms other transparent materials such as all types of PMMA sheet and polystyrene sheet. This allows punching, die cutting, shearing, cold bending, stapling, riveting, etc., next to conventional machining techniques such as sawing, drilling, milling and routing. The high impact strength also results in less breakage during transport of finished articles.

Weathering resistance

Axpet® clear 099 AR sheets have good colour stability, also after prolonged outdoor use or exposure to UV-rays.

Technical information

Detailed technical information on Axpet® clear 099 AR sheet can be found on our website at <http://www.makroform.com>



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