



# MULTICLEAR®

## 11Wall

**MULTICLEAR® 11Wall** is an 11-wall extruded multiwall polycarbonate sheet which offers increased light transmission with acceptable light weight for an 11-layer product allowing cost saving by using less electricity for lighting, excellent thermal insulation and lower weight per square meter. Outstanding aesthetic quality replacing glass and other plastics in continuous glazing applications.

MULTICLEAR® 11Wall is a transparent and translucent sheet with one or two sides UV protection.

Standard production is available in thickness 25 and 32 mm in clear, opal and bronze. Other colours are available on request.

MULTICLEAR® 11Wall has a 10-year limited warranty against discolouration, loss of impact strength and light transmission due to weathering. Manufactured under controlled production conditions to ensure consistent product quality.

#### Fire performance:

Classified B-s1, d0 according to EN 13501-1. The material is suitable for applications where reaction to fire classification is required.

#### ALSO AVAILABLE:

MULTICLEAR® HAMMER FINISH  
 MULTICLEAR® SOLAR CONTROL  
 MULTICLEAR® RPC

#### MULTICLEAR® 11Wall BENEFITS:

- Good light transmission
- Excellent thermal insulation
- More than 10 times the impact strength of PMMA
- More than 4 times the impact strength of PVC
- Lightweight - simple handling and installation

#### APPLICATION AREAS:

**Building industry** - roofing, cladding, sidewalls, conservatories, domes, skylights, sheds, car ports, smoke vents, swimming pool covers, suspended ceilings, glasshouses, shopping center roofing, railway/metro station, stadia roofing and partitions.

**Agriculture** - greenhouses, farm/barn buildings.

**Advertising** - illuminated signs and panels.

## MULTICLEAR® 11Wall – technical specification

Multiclear® 11Wall	Thickness [mm]	Rib distance [mm]	Mass per unit area [g/m <sup>2</sup> ]	U-value [W/(m <sup>2</sup> ·K)]	Standard Width [mm]	UV protection	Standard colours
	25	16	3000 – 3400	1.4	2100 / 1250 / 1200 / 980	1-sided (2-sided optional)	Clear / Opal / Bronze
	32	16	3600 – 3700	1.2	2100 / 1250 / 1200 / 980	1-sided (2-sided optional)	Clear / Opal / Bronze

U-values calculated according to EN 673 (vertical heat flow).

### Polycarbonate material properties:

Property	Value	Unit	Standard
<b>Physical properties</b>			
Density	1,2	g/cm <sup>3</sup>	ISO 1183
Refractive index (20 °C)	1,586		ISO 489
Moisture absorption 24 h, 23 °C, 50% RH	0,15	%	ISO 62
<b>Mechanical properties</b>			
Tensile strength at yield (at break)	63 (70)	N/mm <sup>2</sup>	ISO 527
Elongation at yield (at break)	6 (110)	%	ISO 527
Elastic modulus	>2300	N/mm <sup>2</sup>	ISO 527
Flexural modulus	>2300	N/mm <sup>2</sup>	ISO 178
Charpy unnotched impact strength -40 °C	NB	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength -30 °C	11	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength +23 °C	65	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength -30 °C	10	kJ/m <sup>2</sup>	ISO 180/1A
<b>Thermal properties</b>			
Coefficient of linear thermal expansion (23–80 °C)	65x10 <sup>-6</sup>	K <sup>-1</sup>	ISO 11359-2
Heat deflection temperature, HDT A (1,80 N/mm <sup>2</sup> )	132	°C	ISO 75
Heat deflection temperature, HDT B (0,45 N/mm <sup>2</sup> )	142	°C	ISO 75
Vicat temperature VST/B 120	149	°C	ISO 306
Vicat temperature VST/B 50	148	°C	ISO 306
Thermal conductivity	0,20	W/m·K	ISO 8302

Properties reported here are typical values for polycarbonate. Arla Plast makes no representation that the material in any particular shipment will conform exactly to the values given. The above information is based upon experience and given in good faith. Due to many factors which are outside our knowledge and control, no warranty is given or is to be implied with respect to such information. Detailed product specification and technical manual/information is available on request.