

MULTICLEAR™ STRONG

EXTRUDED MULTIWALL POLYCARBONATE SHEET WITH 5 WALLS

MULTICLEAR™ is a range of high quality polycarbonate extruded multiwall sheet(s). The MULTICLEAR™ production facility has the latest extrusion technology purpose built to focus on high quality production and flexible service dedicated to the multiwall programme. MULTICLEAR™ STRONG range is specifically designed to offer increased stiffness allowing cost saving by using less glazing bars for installations hence increased light transmittance. The product offers a range which has competitive weights and allows bigger spans between glazing bars which which reduces overall costs associated with the metal or allied structure.

MULTICLEAR™ STRONG QUALITIES

- CROSS STRUCTURE OFFERING THE GREATER STIFFNESS & THE SAME BENDING RADIUS AS STANDARD SHEET
- GOOD LIGHT TRANSMISSION FOR THE 5 LAYER PRODUCT
- IMPROVED MECHANICAL PROPERTIES - INCREASED DISTANCE BETWEEN GLAZING BARS
- ONE SIDE UV AS A STANDARD AND TWO SIDE UV PROTECTION IS ALSO AVAILABLE
- LIGHT WEIGHT AND EASE OF HANDLING
- GOOD THERMAL INSULATION
- AVAILABLE IN HAMMER FINISH, NO DROP, SOLAR CONTROL GREY AND SG (10,16 MM)



shopping centre roofings

MULTICLEAR™ QUALITIES

Transparent and translucent · Comprehensive warranties · Good portfolio of closed edge widths · Standard opal is produced with diffusing additives · Knife cutting used in all cutting operations avoiding saw dust.

UV PROTECTION

MULTICLEAR™ STRONG is standard one side UV protected and two side UV protection is also available for the range. The product is produced with uniform UV layer hence optimum protection against discoloration and loss in mechanical properties. There is a **10 year limited warranty** against discolouration, loss of impact strength and light transmission due to weathering.

IMPACT STRENGTH

The multiwall polycarbonate sheet has superior impact strength at quarter of the weight of glass of equivalent thickness. MULTICLEAR™ is more than four times the impact strength of PVC and more than ten times the impact strength of PMMA. The product has outstanding aesthetic quality replacing glass and other plastics in continuous glazing applications.

FIRE PERFORMANCE

In case of fire, MULTICLEAR™ sheet range will melt and allow venting where heat and smoke will be let out of the building and therefore reduce the growth of fire by flame spread.

COLOURS

Opal, white and bronze as standard for all thicknesses. Other colours are available and are subject to respective minimum quantities and surcharges. The opal colours are produced using diffusing additives offering a quality translucent product with uniform spread of light.



canopies



conservatories

APPLICATION AREAS

MULTICLEAR™ STRONG is suitable for the applications where the increased stiffness is needed. For example:

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

Lighting / Packaging - lamp optics and neon signs boxes, pallet shields, protective covers for fragile items.

Advertising - illuminated signs and advertising panels.

Agriculture - greenhouses, lorry/tractor ports and farm/barn buildings.

Arla Plast provide pre-installation/sealing guidelines, wind and snow loading calculations, sheet thickness application criteria, design and regulatory support Europe wide. The service offer will include computer automated knife cutting for cut-to-size.

MULTICLEAR™ STRONG PROPERTIES

MULTICLEAR™ STRONG	THICKNESS mm	STEP mm	WEIGHT g/m ²	U-VALUE W/m ² K	Width (mm)				UV SIDE	Colour	
					2100	1250	1200	980		Opal	Bronze
	8	10	1600	3,0	✓	✓	✓	✓	1(2)	✓	✓
	10	10	1700	2,5	✓	✓	✓	✓	1(2)	✓	✓
	16	10	2700	2,0	✓	✓	✓	✓	1(2)	✓	✓
	20	10	3000	1,8	✓	✓	✓	✓	1(2)	✓	✓
	25	10	3400	1,6	✓	✓	✓	✓	1(2)	✓	✓

PROPERTY ^{a)}	VALUE/CLASS	UNIT	STANDARD
Physical Properties			
Density	1,2	g/cm ³	ISO 1183
Refractive index	1,586		ISO 489
Moisture absorption 24 hours, 23°C, 50% RH	0,15	%	
Mechanical Properties			
Tensile strength at Yield (Break)	63 (70)	N/mm ²	ISO 527
Tensile elongation at Yield (Break)	6 (110)	%	ISO 527
Elastic modulus	2300	N/mm ²	ISO 527
Flexural modulus	2300	N/mm ²	ISO 178
Charpy unnotched impact strength + 23°C	NB	kJ/m ²	ISO 179/2D
Charpy unnotched impact strength - 40°C	NB	kJ/m ²	ISO 179/2D
Izod notched impact strength + 23°C	65	kJ/m ²	ISO 180/1A
Izod notched impact strength - 30°C	10	kJ/m ²	ISO 180/1A
Rockwell hardness	M70		ISO 2039-2
Thermal Properties			
Linear coefficient of thermal expansion (23-80°C)	0,70	10 ⁻⁴ K ⁻¹	
Vicat temperature VST/B 120	149	°C	ISO 306
Vicat temperature VST/B 50	148	°C	ISO 306
Heat deflection temperature, HDT A (1,80 N/mm ²)	132	°C	ISO 75
Heat deflection temperature, HDT B (0,45 N/mm ²)	142	°C	ISO 75
Specific heat capacity, Cp	1,17	kJ/kg. K	
Thermal conductivity	0,21	W/m. K	DIN 52612

a) Properties reported here are typical polycarbonate values. Arla Plast makes no representation that the material in any particular shipment will conform exactly to the values give.

These ratings are not intended to reflect hazards presented by this or any other material under actual fire condition.

The information above is based upon practical experiences and given in good faith. Due to many factors, affecting the use of our products, 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.

Please note: Minimum quantities varies by the width requirements and product options. Special thicknesses and sizes are available upon request. Please contact the local area office for more information.