MULTICLEAR® RPC

MULTICLEAR® RPC is a polycarbonate sheet extruded primarily from regrind polycarbonate. With MULTICLEAR® RPC you will get a product with high impact strength and high temperature resistance.

MULTICLEAR® RPC is suitable for outdoor applications. The RPC sheet can bet protected against UV on the top side. To widen the use the RPC sheet can be offered in black multiwall structure with one co-extruded side. The product can also be produced with BOX 2W, BOX 3W and STRONG structures. Multiclear RPC can be coloured and available in varying thicknesses.

ALSO AVAILABLE:
MULTICLEAR® HAMMER FINISH, MULTICLEAR® SOLAR CONTROL (UV protected).

EXCELLENT FIRE PERFORMANCE complying requirements to EN 13501-1 (EUROPEAN BUILDING STD). In case of fire, the sheet will melt and allow venting where heat and smoke will be let out and therefore reduce the growth of fire by flame spread.

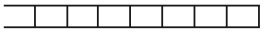
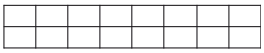
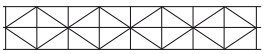
MULTICLEAR® RPC BENEFITS:

- Lower costs than standard polycarbonate materials
- More than 10 times the impact strength of PMMA
- More than 4 times the impact strength of PVC
- One side UV as standard

APPLICATION AREAS:

Internal partitions, soundproofing, hospital room privacy partitions, farmhouse partitions and roofing, furniture parts. Ideal for cladding, transport boxes and packaging.

MULTICLEAR® RPC TECHNICAL SPECIFICATIONS

Product structure	Thickness mm	Step mm	Weight g/m²	U-Value W/m² K	Width mm			
					2100	1250	1200	980
BOX 2 WALL 	4	6	800	3,9	☑	☐	☐	☐
	6	6	1300	3,5	☑	☐	☐	☐
	6	10	1300	3,5	☑	☐	☐	☐
	8	10	1500	3,2	☑	☑	☑	☑
	10	10	1700	3,0	☑	☑	☑	☑
BOX 3 WALL 	16	20	2700	2,3	☐	☑	☑	☑
STRONG 	10	10	1700	2,5	☑	☑	☑	☑
	10	10	2700	2,0	☑	☑	☑	☑
	20	10	3000	1,8	☑	☑	☑	☑
	25	10	3400	1,6	☑	☑	☑	☑

Property	Value	Unit	Standard
Physical properties			
Density	1,2	g/cm³	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/mm²	ISO 527
Tensile elongation at yield (break)	6 (110)	%	ISO 527
Elastic modulus	2300	N/mm²	ISO 527
Flexural modulus	2300	N/mm²	ISO 178
Charpy unnotched impact strength +23 °C	NB	kJ/m²	ISO 179/2D
Charpy unnotched impact strength -40 °C	NB	kJ/m²	ISO 179/2D
Izod notched impact strength +23 °C	65	kJ/m²	ISO 180/1A
Izod notched impact strength -30 °C	10	kJ/m²	ISO 180/1A
Rockwell hardness	M70		ISO 2039-2
Thermal properties			
Linear coefficient of thermal expansion (23-80 °C)	0,7	10^{-4} x 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/mm²)	132	°C	ISO 75
Heat deflection temperature, HDT B (0,45 N/mm²)	142	°C	ISO 75
Specific heat capacity, Cp	1,17	kJ/kg.K	
Thermal conductivity	0,21	W/m.K	DIN 52612

Properties reported here are typical values. 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.

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