

Polycarbonate Sheet

UV2 – Clear



Polycarbonate sheets are a light weight and well proven in situations the require a see-through product and is unique for its impact strength and shock load resistance

Manufactured with two sided UV protective coatings, Polycarbonate UV2 offers excellent weathering properties, whilst maintaining high clarity and impact resistance

Tough, easy to handle and easily fabricated to almost any shape and build to perform in Precision Engineering, Process Machine Guarding, Architectural Glazing, General manufacturing, and Industrial applications.

Features & Benefits		Applications		
<ul style="list-style-type: none">• Extreme impact strength• Excellent resistance to high and low temperatures• OH&S Compliant• Excellent transparency•		<ul style="list-style-type: none">• Safety – Barriers, Guards, Enclosures• Viewing Panels- Noise Control enclosures, Switchgear Cabinets,• Glazing- Bus Shelters, Sports Stadiums, Signage• Machined Parts - Precision		
Makrolon® UV2	1220 x 2440	1 - 12mm	Clear	Two sided UV coat, signage, covered walkways, bus shelters, sky lights & exterior applications
	1830 x 2440	2-12mm		
	2050 x 2440	2-9.5mm		



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PROPERTIES	TEST METHODS			POLYCARBONATE	APPLICATIONS	
	DIN/*VDE	ASTM*UL	UNITS			
DENSITY	53479	D 792	g/cm3	1.20	SAFETY • Safety Barriers • Machine Guards • Machine Enclosures	
Water absorption (1):	53495	D 570	mg	13/23		
• after 24/96 h immersion in water of 23°C	-	-	%	0.15		
• at saturation in air 23°C / 50% RH	-	-	%	0.35		
• at saturation in water of 23°C	-	-	%	0.35		
THERMAL PROPERTIES					VIEWING PANELS • Noise Control Enclosures • Switch gear Cabinets • Scientific Instrumentation • Fork Lifts • Duct Work Sight Panels • Earth Moving Machinery	
Melting Point	-	-	OC	150		
Glass transition temperature	-	-	OC	-		
Thermal Conductivity at 230C	-	-	OC	-		
Coefficient of linear thermal expansion:						
• average value between 23° and 60°C	-	-	m/(m.K)	65x10-6		
• average value between 23° and 100°C	-	-	m/(m.K)	65x10-6		
Deflection temperature under flexural load:						
• method A: 1.8 N/mm2	53461	D 648	OC	135		
Maximum allowable service temperature in air:						
• for short periods (3)	-	-	OC	135		
• continuously: for 5,000/20,000 h (4)	-	-	OC	125/115		
Minimum service temperature (5)	-	-	OC	-60		
Flammability (6)						
• according to ASTM ("Oxygen Index")	-	D 2863	%	26		
• according to UL 94 (3mm thickness)	-	*94	-	V-2		
MECHANICAL PROPERTIES at 23°C (1) (7)					GLAZING • Bus Shelters • Sports Stadiums • Vandal Protection • Signage	
Tensile test (8):						
• tensile stress at yield/tensile strength at break (9)	+	53455	D 638M	N/mm2		} 65/-
	++	53455	D 638M	N/mm2		}
• elongation at break (9)	+	53455	D 638M	%		} >50
	++	53455	D 638M	%		}
• modulus of elasticity (10)	+	53457	D 638M	N/mm2		} 2300
	++	53457	D 638M	N/mm2		}
Compression test (11):						
• 1%-offset yield strength (10)	+	53454	D695	N/mm2		68
Tensile creep test (8):						
• stress to produce 1% elongation in 1,000 h (1/1,000)	+	53444	D 2990	N/mm2		} 17
	++	53444	D 2990	N/mm2		}
Impact strength - Charpy (12)	+	53453	-	kJ/m2		no break
Notched impact strength: - Charpy	+	53453	-	kJ/m2		} 20
	++	53453	-	kJ/m2	}	
	+	-	D 256	kJ/m2; J/m	} 9;90	
	++	-	D 256	kJ/m2; J/m	}	
Ball indentation hardness H 358/30 or H 961/30 (13)	+	53456	-	N/mm2	120	
Rockwell hardness (13)	+	-	D 785	-	M75	
ELECTRICAL PROPERTIES at 23°C (7)					MACHINED PARTS • Precision Engineering Components • Insulating Parts for Electrical Engineering • Level Indicators • Medical and Pharmaceutical Devices • Components in Contact With Food	
Dielectric strength (14)	+	53481	D 149	kV/mm		} 28
	++	*0303 T2	D 149	kV/mm		}
Volume resistivity	+	53482/	D 257	Ohm.cm		} 1017
	++	*0303 T3	D 257	Ohm.cm		}
Surface resistivity	+	53482/	D 257	Ohm		} 1018
	++	*0303 T3	D 257	Ohm		}
Dielectric constant: - at 50Hz	+	53483/	D 150	-		} 3
	++	*0303 T4	D 150	-		}
- at 1 Mhz	+	53483/	D 150	-		} 3
	++	*0303 T4	D 150	-		}
Dissipation factor tan : - at 50 Hz	+	53483/	D 150	-		} 0.001
	++	*0303 T4	D 150	-		}
- at 1 Mhz	+	53483/	D 150	-		} 0.008
	++	*0303 T4	D 150	-		}
Resistance to tracking	+	IEC 112/	D 150	-	} CTI 350	
	++	*0303 T1	D 150	-	}	



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