



dott. Gallina s.r.l.

## Technical Data Sheet

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Rev. 07

13.04.2015

### Name

POLICOMP

### Specifications

DESCRIPTION	Polycarbonate solid sheet
STANDARD WIDTH	2.050 - 2.500 mm
STANDARD LENGHT	3.050 – 6.100 mm
UV PROTECTION	Protected on both sides

Characteristics	Method	Unit	Nominal value by thickness [mm]									
			2	3	4	5	6	8	10	12	15	
REF. CODE	2.050 mm		2129	2130	2131	2132	2133	2136	2139	2457	2460	
	2.500 mm		2420	2425	2430	2435	2440	2442	2443	2444	2446	
WEIGHT		kg/m <sup>2</sup>	2,4	3,6	4,8	6	7,2	9,6	12	14,4	18,0	
THERMAL TRANSMITTANCE U	ISO 10077-2	W/m <sup>2</sup> K	5,66	5,49	5,33	5,21	5,09	4,84	4,61	4,35		
SOUND INSULATION R <sub>w</sub>	ISO 717-1	dB	25	26	27	28	29	31	33	34	36	
LIGHT TRANSMISSION	Transparent	EN 14500	%	91	90	90	90	88	86	80	80	79
	Bronze	EN 14500	%	70	60	51	43	41	33	29		
	Grey	EN 14500	%		72	64	56	55	44	39		
	Green	EN 14500	%			28		42				
	Blue	EN 14500	%		62	57	52	47	42			
	Opal	EN 14500	%		53	50	40	38	29	24		
	Trasparent/IR <sup>(*)</sup>	EN 14500	%					70			60	
REACTION TO FIRE CLASS	EN 13501-1		B – s2, d0									
	UNI 9177 D.M. 26/06/84								Classe 1			

(\*) Polycarbonate solid sheet in clear colour with IR treatment

### Typical properties

Physical	Nominal Value	Unit	Method
Density	1.20	g/cm <sup>3</sup>	ISO 1183/B
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	3.0	g/10 min	ISO 1133
Water Absorption			ISO 62
73°F (23°C), 24 hr	0.15	%	
Equilibrium, 73°F (23°C), 50% RH	0.32	%	
Mechanical	Nominal Value	Unit	Method
Tensile Modulus	2480	MPa	ISO 527-2/50
Tensile Strength			ISO 527-2/50
Yield	60.0	MPa	
Break	72.0	Mpa	
Tensile Elongation (Break)	150	%	ISO 527-2/50
Flexural Modulus	2410	MPa	ISO 178
Flexural Strength	96.0	MPa	ISO 178
Taber Abrasion Resistance	45	%	ASTM D1044
Impact	Nominal Value	Unit	Method
Notched Izod Impact			
73°F (23°C)	960	J/m	ASTM D256
73°F (23°C)	93	kJ/m <sup>2</sup>	ISO 180/A



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Unnotched Izod Impact (73°F (23°C))	No Break		ASTM D256 ISO 180
Instrumented Dart Impact 73°F (23°C), Total Energy	93.8	J	ASTM D3763
Tensile Impact Strength	630	kJ/m <sup>2</sup>	ASTM D1822
<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Method</b>
Rockwell Hardness			ASTM D785
M-Scale	74		
R-Scale	118		
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Method</b>
Deflection Temperature Under Load			
0.45 MPa, Annealed	146	°C	ISO 75-2/B
1.8 MPa, Unannealed	132	°C	ISO 75-2/A
1.8 MPa, Annealed	143	°C	ISO 75-2/A
Vicat Softening Temperature	151	°C	ISO 306/B50
CLTE - Flow (-40 to 180°F (-40 to 82°C))	6.8E-5	cm/cm/°C	ASTM D696
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Method</b>
Volume Resistivity	2.0E+17	ohm·cm	ASTM D257
Dielectric Strength			
420 V/mil	17	kV/mm	ASTM D149
430 V/mil	17	kV/mm	IEC 60243-1
Dielectric Constant			ASTM D150
60 Hz	3.00		
1 MHz	3.00		
Dissipation Factor			
60 Hz	1.0E-3		ASTM D150
1 MHz	2.0E-3		
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Method</b>
Flame Rating			
1.60 mm	HB		UL 94
3.20 mm	HB		
Oxygen Index	26	%	ISO 4589-2
Average Extent of Burning	3	cm	ASTM D635
<b>Optical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Method</b>
Refractive Index	1.586		ISO 489
Transmittance	89.0	%	ASTM D1003
Haze	1.0	%	D1003