



### POLYCARBONATE SHEET

Impact Resistance, Transparency And Light Transmission.

#### ABOUT LYON

Launched in 1994, Lyon Plastics Co., Ltd., is a professional corrugated polycarbonate sheet manufacturer whose products are trusted around the globe.

Lyon Plastics is experienced in the design, production, merchandising, and related services of polycarbonate sheets and supplies tailor-made product solutions to the construction, architecture, agriculture, OEM and DIY markets. Under global administration, Lyon Plastics high-quality roofing and lighting sheets are trusted by and sold to more than 30 countries including the United States, Japan, Germany, Australia, New Zealand, and Central America.

With product quality meeting or exceeding industry standards, Lyon Plastics has developed more than 60 different corrugated polycarbonate profiles. Lyons core product characteristics include high light transmittance, heat insulation, UV-absorption, and fire retardant properties. Lyon Plastics' wide variety of products and services are easily accessible to global clients via marketing channels in Asia, America, Europe, and other emerging markets.









### CUSTOMIZED MATERIALS

Virgin resin, such as SABIC and CHIMEI, is used to develop crack-proof corrugated polycarbonate sheets. Our high-quality, high-stability, plastic products are extruded to meet or exceed industry standards by combining the physical features of plastic materials under high temperatures. Customized products are available by special order.

At Lyon Plastics, we believe it is important to offer product options in regards to cost, quality, and function. In terms of cost savings, corrugated polycarbonate sheets can also be manufactured using recycled materials with the option to add specific additives such as UV-coatings, fire retardant, etc. as necessary.



#### **OVER 60 PROFILES AVAILABLE**

Lyon Plastics has successfully developed over 60 different profiles. This was achieved by combining theory and practice with our high-performance, co-extrusion machinery made in Japan. The co-extrusion production process includes an advanced UV-protective coating which is available on all of our corrugated polycarbonate materials.





# PRODUCTION HOURLY CHECK

Experienced in the production of corrugated polycarbonate sheets. Lyon Plastics knows the physical features of plastics well. holding their product defect rate at nearly 0%. Strict quality control (QC) is maintained over the wave size – the expansion and shrinkage of the waves – via cooling.

In addition to hourly checks for extrusion stability during the manufacturing process, Lyon Plastics uses the US QUV accelerated weathering tester to determine the yellowing level of the sheets in 72 hours. The yellowing degree equals the "worn-out" level of the finished product outdoors under direct sunlight, rainfall and dew.



# 10 YEARS LIFECYCLE WARRANTY



Lyon Plastics' corrugated polycarbonate products feature an advanced UV-protective coating. This UV-protection guards the polycarbonate corrugated sheets from the effects of long-term exposure to direct sunlight, protecting the sheet from yellowing and deterioration. The sheets are also tested to be crack-proof under the wind scale of 12.

#### Product Features:

- 1.Surface Yellowing Level: The figures of the yellowing level after delivery and 5 years under ASTM DI1925 are not more than 3 and not more than 10 respectively.
- 2.UV-Protective Coating: The coating value under co-extrusion of 12% high-temperature UV protection is 40 um.
- 3.UV-Resistance:
  - The wavelength of UV transmittance is not more than 2.4%.
- 4.Transmittance: The figures of total light transmittance shall be 90% of the origins under ASTM D1003.





POLYCARBONATE CORRUGATED SHEET

Top Choice Corrugated Polycarbonate Roofing Sheets

#### **PRODUCTS**

#### Overview

Polycarbonate corrugated sheet is a high polymer with superior impact resistance, transparency and light transmission. Its excellent mechanical, thermal and electrical properties make it an outstanding material in a wide range of construction, architecture, agriculture, DIY project or any application designed to improve daylighting.

#### **Aesthetics**

The corrugated sheet are essential in the buildings. Lyon Plastic as a professional supplier combines esthetics and functions and makes customization available for perfect coordination with the building materials besides the esthetic and durable attributes brought by extrusive surface on the coating of UV absorbers and precise sizes of waves.

#### Diffused Panel

Diffused panels allows 89% light transmission, are designed to reduce unpleasant glare or the stark contrast of hard-edged shadows from direct sunlight while maintaining ample natural light.

This diffusion feature is a perfect feature for skylights, ridges lighting and vertical side light. Greenhouse applications can also being used where plants benefit from high levels of light for growth but need protection from harsh intense sunlight.

Diffused panels provide a more comfortable, worker-friendly environment for enhanced productivity. They also bring energy benefits by lowering artificial lighting needs. Diffuse option is available in all of our standard or custom profiles.

#### **UV Protection**

By using high density UV-absorbing agent in thickness of 0.04mm which is evenly coated on the surface of the sheets via co-extrusion process, our sheets has been stabilized to avoid yellowing, particularly in the range of UV wave length of 290nm~400nm, while less than 2.4% UV ray penetrability within wave length 300nm. Thus the polycarbonate sheets always remain fresh and is capable of screening off the UV ray within 400nm harmful to human health.

#### Main Benefits

Impact resistance:

- 1.Virtually unbreakable
- 2.Transparent: up to 92% LT
- 3.Weather and UV resistant
- 4. Wide service temperature range
- 5. High flammability rating

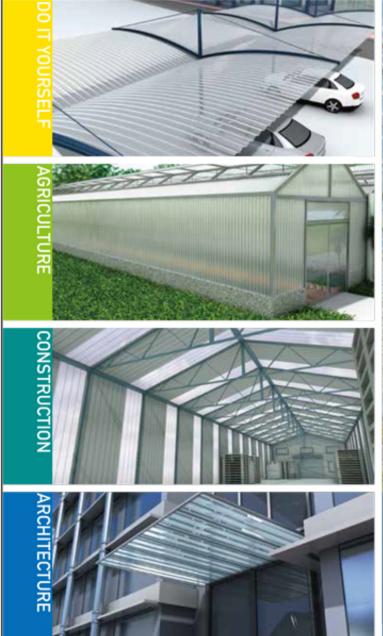
	DESCRIPTION	COLORS					
CLEAR	Transmits up to 90% natural daylight, resulting in high lighting within the structure.	CLEAR (CL001)					
TRANSPARENT	Low haze colors offering high clarity.	BLUE (BL001)	GREEN (GR001)	DARK BRONZE (BZ001)	BRONZE TINT (BZ002)	DARK BRONZE (BZ003)	
		GARY (GE001)	GARY (GE002)	GREY TINT (GE003)	BURGUNDY (CT001)		
TRANSLUCENT	Light transmission 24-45% White Diffuser: Transmit 85-90% visible light with complete light transmission, produces diffused and consistent lighting within the structure	PEARL (PR001)	OPAL (0P001)	CREAM (CM001)	BEIGE (CPP)	OPAL DIFFUSER	
OPAQUE	Light transmission 5-24% Colors that transmit very little to no light	SILVER (SL001)	GREY (CPP)				

No.	Profile	Thickness (mm)	Pitch (mm)	Depth (mm)	Width (mm)	Effective Width (mm)
L1	26 190 820	0.8 ~ 2.0	190	26	820	760
L2	26 840	0.8 ~ 2.0	260	26	840	780
L3	26 910	0.8 ~ 2.0	210	26	910	840
L4	18 1050	0.7 ~ 0.8	76	18	1050 Customized Maximum	988
L5	18 1000	0.65 ~ 0.8	76	18	1045 Customized Maximum	7 - 7
L6	16 4 63 720	. 0.8	63	16	720	690
L7	38 128 580	0.8	128	38	980	896
L8	9 # + 32 1000	0.65 ~ 0.8	32	9	1000	934
L9	41 450	0.8 ~ 2.0	203	41	450	406
L11	22 185 850	0.8	85	22	850	765
L13	9 # 45CM 45CM	0.65 ~ 0.8	32	9	1000	934
L14	18 45CM	0.7 ~ 0.8	76	18	1030	988
L15	33 1118	0.8 ~ 2.0	337	33	1118	1012
L16	34° # 38°	0.8 ~ 1.0	9"	3/4"	38"	36"
L17	1 1/4***********************************	0.8 ~ 1.0	12"	1 1/4"	38"	36"
L18	24"	1.2	24"	4"	24"	-
L19	35 4 841.5 841.5	0.8 ~ 2.0	193	35	841.5	773

No.	Profile	Thickness (mm)	Pitch	Depth (mm)	Width (mm)	Effective Width
L20	57 177 920	1.0 ~ 1.2	177	57	920	885
L21	48 4 1168	0.8	146	48	1168	1022
L22	25 4 828	0.8 ~ 2.0	147	25	828	738
L23	26 4 1046	0.8 ~ 2.0	144	26	1046	1008
L24	19 4 902	0.8 ~ 2.0	171.2	19	902	856
L25	18.5 4 835	0.8 ~ 1.2	90	18.5	835	810
L26	33 710	0.8 ~ 1.2	300	38	710	666
L27	41 41 995	0.8 ~ 2.0	313	41	995	939
L28	33 4 250	0.8 ~ 2.0	250	33	1090	1000
L29	18 1050	0.8 ~ 1.2	100	18	1050	1000
L30	35.8 818.7	0.8 ~ 2.0	360	35.8	818.7	720
L31	35 1086	0.8 ~ 2.0	333	35	1086	1000
L32	25 4 193 816.2	0.8 ~ 2.0	193	25	816.2	772
L33	66 4 551	0.8 ~ 2.0	475	66	551	475
L34	22.6 1097	0.8 ~ 1.2	147.1	22.6	1097	1029.7
L35	150 250 564	2.0	250	150	564	500
L37	37 4 739	0.8 ~ 2.0	172	37	739	688

No.	Profile	Thickness (mm)	Pitch (mm)	Depth (mm)	Width (mm)	Effective Width
L38	31 + 222 + 15	0.8 ~ 2.0	222	31	958	885
L39	19 1121	0.8 ~ 2.0	213	19	1121	1065
L40	19 1120	0.8 ~ 2.0	176	19	1120	1056
L42	40 4 798	0.8 ~ 2.0	358	40	798	716
L44	15.59	0.8 ~ 2.0	9"	15.59	36"	914.4
L46	24.6 108.48	0.8 ~ 1.2	148.6	24.6	1080.48	1040.2
L49	25 1107	0.8 ~ 2.0	205	25	1107	1026
L50	40 40 819.7	0.8 ~ 2.0	372.5	40	819.7	745
L52	910 40 40 995	0.8 ~ 2.0	182	40	995	910
L54	45 190 820	0.8 ~ 2.0	190	45	820	760
L56	29 191 832.12	0.8 ~ 2.0	191	29	832.12	764
L59	4° \(\frac{1}{4}\)	1.2	24"	4"	24"	-
L60	23.5 4 368.5 1060.91	0.8 ~ 2.0	166.5	23.5	1060.91	999
L61	50 780	1.2	390	50	871.2	780
L62	910 182 989	1.0	182	34	989	910

UV-Proof(UV-coated): Treated with special processing of UV-layer of anti-ultraviolet ray on surface, the sheets would not become yellowish or have any change in optical and mechanical property even after long exposure to sunlight. 10 years' quality warranty is provided.





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