

There are a variety of options when it comes to greenhouse glazing systems. Each serves a specific purpose with its own Pros" & Cons". There is a large difference in the quality of plastics resin manufacturing, especially in greenhouse glazing materials. Not all Polycarbonates are created equal: Lets' discuss the most common applications:

1. Polycarbonate:

Polycarbonates come in a wide array of thicknesses and hues from several different manufacturers. Not all plastics are created equal! The difference in qualities in polycarbonates are vast. Products that you can find in your local big box stores and hardware stores are typically of the lowest quality that is available. AWG Inc only supplies the highest quality polycarbonates, not available to the general public in retail big box store settings. All polycarbonates sold by AWG Inc are deemed "hail proof" by the manufacturer & come with a 15 year warranty against Hail Damage(complete penetration), Yellowing, & loss of light. You will not find this warranty with any other product supplier. This product has been specically engineered and proven after years of testing & research. The polycarbonate AWG Inc offers blocks 100% of the harmful UV spectrum, but allows 100% of the "good UV" spectrum, that all plants need for photosynthesis through. The design of how your polycarbonate system is installed is vital to its function in the environmental control, & the panels longevity.

Polycarbonates comes in a variety of applications from single wall to up to 70 wall or greater. The most common, & most cost effective is 8mm twinwall. This is the most standard across the board for most manufactures.

Light transmission & light spectrum transferrance, & light refraction are all important aspects of any glazing covering.

In the 8mm twinwall profile the most common light transmission applications are:

A. Select IQ: specific to the application the light transmission can range from 82%. This amount can be decreased as the application requires with ranges as low as 40%. Select IQ is the newest in Polycarbonate technology. Specifically engineered to reduce over heating & reduce thermal loss. (available only in multiwall applications)

B. Diffused: Diffused was created around 11 years ago, surpassing popularity of clears due to its efficiency. Often called solar soft, or soft white. Diffused polycarbonates range from 80% natural light transmission to lower depending on the number of walls. This panel decreases the overheating effect that clear polycarbonates can cause. Available in singlewall corrugated or R panel, 6mm, 8mm, 10mm twinwall & triplewalls as well as 16mm triplewall. Available up to 70 wall applications. 8mm twinwall is the most common and cost efficient application.

C. Opaque: Opaque is a lower level light level transmission that is primarily used in applications of heat reduction & propagation. In the singewall application, it boasts a light transmission of 64% while in the twinwall applications it allows 54% natural light transmissions. Popular for wall applications that receive the hottest part of the day. Also popular for propagation greenhouses that need to reduce the amount of natural light transmission where light shade or deprivation systems are not applicable.

D. Clear: Clear Polycarbonates boast the highest level of natural light transmission. With up to 90% natural light transmission in the singewall application, & 80% in the twinwall application. Available in solid core, and multiwall up to 70 wall. Only the solid core is transparent all other panels are translucent. The aesthetic factor is the most common factor in choosing this product. Clears are typically only used when there is less concern with

efficiency & need to still retain some interior visual ability from the exterior. Clears can create an overheating affect if not properly managed.

E. WBW/Reflective: One of the newer trends (and a standard for many AWG Inc designs) the reflective white black white Polycarbonates solve several issues with cost reducing solutions. The standard size is 8mm twinwall. This panel boasts a solid black core, & a reflective white UV coating on both sides. Designed for maximum light refraction & Zero light penetration. This panel eliminates the need for wall light deprivation systems & increases the greenhouses efficiency. 90% of light in your greenhouse, in most designs, comes through the roof, while only 10% comes through the wall systems. Designed to refract UV light everywhere inside your greenhouse, these panels are ideal for many applications. (only available in multiwall)

Polyethylene/Poly Film:

Polyethylene films are designed for temporary structures, hardening houses (ie hoop houses). These flexible films are designed most commonly in a dual layer system, which utilize inflation fans to create an air gap between the two layers. Most common in 4mm & 6mm thicknesses. While vulnerable to hail, & wind damage these coverings do serve their intended purpose. Not recommended for peaked, gabled, or any structure in which it is not the manufacturer designated covering. Available in different levels of light transmission.

Acrylics/Glass:

There are a variety of other options when it comes to glazing systems for greenhouses. Acrylics & Glass are found most commonly in Architectural applications and small residential applications. With the advancement of E

rated glass, glass greenhouses can yield more effectiveness than just standard tempered glass, however, the sacrifice in UV transmission makes this option less desired. Acrylics & Solid Polycarbonates can serve as a glass panels substitute aesthetically. For exterior applications, solid core polycarbonates are superior to acrylics & glass.

These are the most common glazing systems for greenhouses. There are several different resin manufacturers that produce these products. At AWG Inc we only sell the proven best, backed by the highest warranties in the industry.

