

# GLASS VS POLYCARBONATE VS FILM



## 4MM TOUGHENED SAFETY GLASS

### Advantages

- Longevity
- Traditional look
- Light clarity
- Easy to clean
- Very strong and durable

### Disadvantages

- Less thermal efficient (4mm glass R=1.0)
- Potential to burn plants due to the level of clarity

### What to look out for

Be sure you get **toughened safety glass**, otherwise it will be a hazard.

4mm is significantly stronger than standard 3mm Safety Glass. Winter Gardenz only uses 4mm toughened safety glass, not 'float glass' like a lot of the imported greenhouses you'll find.

## 6MM TWIN WALL POLYCARBONATE

### Advantages

- Better thermal efficiency (6mm Twinwall R=1.54). Keeps the warmth in longer into the night and offers better frost protection
- Very tough and durable
- Good longevity (provided it is a premium grade polycarbonate)
- Produces a slightly diffused light which helps prevent burning/scorching the plants

### Disadvantages

- Prone to scratching
- The flutes in the twin-wall can attract moisture, mould and bugs - if not sealed sufficiently in the frame. (Winter Gardenz Greenhouse flutes are all sealed with rubber beading)

### What to look out for

Be sure the polycarbonate is made from virgin materials from a reputable supplier (i.e. Laser-Lite, GE etc.) and is not recycled. Ensure polycarbonate is UV treated on both sides equally (otherwise it will only last 1-2 years in New Zealand)

Don't touch 4mm polycarbonate it will not survive in the harsh NZ conditions.

## PLASTIC FILM

### Advantages

- Low cost per square meter
- Diffused light - prevents burning and aids photosynthesis

### Disadvantages

- Relatively short lifespan and requires replacement
- Prone to rips and tears
- Poor thermal efficiency (R=0.83), unless double skinned.

### What to look out for

Buy a quality reputable brand tunnel house which will ensure you have access to parts and new polyethylene covers in the future. Replace covers every 3-5 years, leaving it longer will result in film going milky white, which will reduce crop yield and warmth. You can choose different thicknesses of polyethylene skin, we recommend 200-micron as a minimum in New Zealand, any less and you'll end up replacing it even sooner.

