

1.0 Clear float glass and low iron glass

1.1 Clear float glass

Clear float glass is colourless and transparent when viewed face on. However when viewed on the edge clear float glass has an inherent green tinge. This greenish tinge is due to the presence of iron oxide found naturally in the raw materials used to produce glass. The thicker the glass the more noticeable the tinge is. When used with a coloured background, such as painted glass splashbacks, the paint colour will be distorted by the green tinge.

1.2 Low iron glass

Low iron glass is ultra clear and provides a higher degree of transparency than clear float glass. This optimum clarity is achieved by removing most of the iron oxide content used to produce glass. The improved clarity of low iron glass compared with clear float glass is barely discernable unless the two types of glass are viewed against a coloured background.

1.3 Performance Comparison – Clear float glass versus low iron glass

The percentage of light that passes through low iron glass is greater than clear float glass of the same thickness. This makes low iron glass far superior and ideal for displaying true colour and clarity.

Glass Thickness	Light transmission* %	
	Clear Float Glass	Low Iron Glass
3mm	89	91.7
4mm	89	91.6
5mm	88	91.5
6mm	87	91.4
8mm	86	91.2
10mm	85	90.0
12mm	84	90.0
15mm	82	90.3

*Light Transmission – refers to the percentage of external light that passes through the glass, the higher the percentage the more daylight that will pass through. Results may vary between glass suppliers.

2.0 Benefits of using low iron glass compared to clear float glass

- Substantially reduced green tinge
 - This eliminates colour distortion apparent in clear float glass.
 - When used in splashbacks it gives more accurate colour matching.
- Enhanced external viewing
 - Gives glass the highest degree of visible light transmission.

3.0 Where and why use low iron glass

Low iron glass can be used anywhere clear float glass can be used. It can be laminated, toughened, and is treated exactly the same as clear float glass. Designed for applications where optimum clarity is desired, it's this attribute that makes low iron glass sought after by designers and architects, when the green tinge in clear float glass is undesired – primarily in light colour painted splashbacks.

4.0 How to distinguish low iron glass from clear float glass

When viewed face on it is difficult to distinguish the difference between clear float glass and low iron glass. There are two common ways to identify low iron glass.

4.1 View glass on the vertical or horizontal edge

As glass panel height and width increases and where the back edge of the glass is located in a channel or abuts to a wall, clear float glass edge colour can vary from green to almost black whereas low iron glass edge will have a reduced green tinge which is more transparent or vary from light blue to a darker shade of blue.

4.2 View glass on a light coloured background

It is noticeable that the colour in low iron glass is much closer to the colour of the background shown whereas the colour in clear float glass is affected by a slight green tinge.

5.0 What to do before making a purchase

As glass is derived from naturally occurring raw materials, the end product may vary between batches and manufacturers. Compare both low iron glass and clear float glass to make an informed decision based on your application requirements.

- Depending on a number of external factors such as lighting, application, viewing distance and angle, the appearance of low iron glass and clear float glass will alter.
- When viewing colour used on glass splashbacks, the colour appearance over a large expanse can look slightly different from the colour shown in a small sample.
- When specifying a custom colour the following information must be provided:
 - The paint manufacturer's name
 - The name of the paint colour
 - The paint manufacturer's colour code