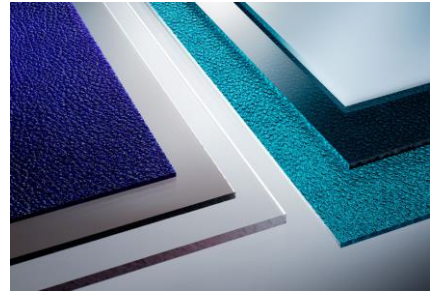


marlon fs Laser Cutting



Marlon FS/FSX polycarbonate flat sheet can be laser cut, engraved and marked although the exact conditions will vary depending on the set up.

Typically, CO₂ lasers are used as the wavelength reacts very well with a large number of plastic materials. Lasers can be used to cut complex shapes and patterns, however to obtain a clean edge optimizing laser power and speed is needed. To this end, some experimentation to find the correct settings will be required.

The finished edge will be slightly rough and discoloured, and may be oblique on thicker sheets. Whitening or browning of the edge can occur, especially in sheets more than 1.5 mm thick. Adjusting the feed speed can minimise the severity of these.

Newly laser cut parts should be kept stress free, as induced stresses will increase the likelihood of breaking.

The laser power should be between 250 and 1000 watts, start trial speed of 10mm/sec.

An appropriate extraction system is necessary to remove the monomer vapours and other combustion gasses formed during cutting.

It is recommended to anneal the parts after laser cuttings, to remove the residual internal stresses created by this process.

The laser settings and recommendations above are only an indication and to achieve the desired edge it is recommended to run a trial cut to ensure the optimum settings and edge finish are obtained.



Brett Martin Ltd. pursues a policy of continuous product development and reserves the right to amend specifications without notice.

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