

Guide to Substrates

PRODUCT		BENEFITS	MOISTURE RATING	STRENGTH	WEIGHT	FORMALDEHYDE	PRICE	COMMENTS
MDF (Medium Density Fibreboard)	MDF Standard*	Suitable for most joinery applications. Edges machine well for planing, drilling and routing. Has stronger screw holding in both face and edge than PB.	4	cc	***	E1*	\$\$	Heavier to handle than PB. Around 15% heavier than particleboard at 730kg/m³
	MDF Liteboard	Using 20% less resin and consequently much lighter and easier to manage. As a consequence is less robust but favoured as a substrate for HPL benchtops. Great where weight needs to be reduced i.e. caravans and boats.	•	د	& &	El	\$\$	We offer additional 3600x1800 size to work with HPL sheets.
	MDF MR EO (moisture resistant/ low formaldehyde rating)	The best choice for high moisture areas such as laundries, bathrooms etc. The edge machines better because of the melamine resin.	44	CC	***	EO	\$\$	An up-spec from MDF Standard and pricing is at a slight premium.
	MDF FR (Fire-Resistant)	Certified to meet NZ Building codes. Excellent choice for ceiling and wall panels overlaid with veneer, laminate or melamine. Available in black or natural for decorative effect.	46	دد	&&&	EI	\$\$\$\$	Very popular to create negative detail with router cut overlaid veneer to exposure the core. A cheaper option and better finish than applying a fire-resistant coating.
HDF (High Density Fibreboard)	MR EO (Moisture- Resistant/low formaldehyde)	The best choice for heavily machined doors and those used in high moisture areas.	44	ccc	***	EO	\$\$\$	Used for Thermoform doors
Particleboard	PB Standard	An economical choice - costs around 10% less than MDF. Lighter and easier to handle than MDF and creates less dust when cutting. Standard PB has better resistance to swelling than MDF when exposed to moisture.	•	cc	& &	EI	\$	Not suited for high-gloss finish overlays or paint coatings where a fine, flat finish is required. Total myth that it gives an inferior result to MDF when edged.
	PB MR (Moisture Resistant)	Benefits as above and additionally suited to high moisture areas such a laundries, bathrooms.	44	CC	& &	El	\$	As per above. Same additive used in MR MDF to achieve moisture resistance.
Plywood	Birch BB/B	Strong, moisture resistant, with smooth and consistent pale faces and stunning edge detail. Edges can be clear finished/lacquered and don't require edge tape	444	ccc	***	E1	\$\$\$\$	A stunning multi-ply edge looks great with a lacquer or overlaid with a laminate or veneer. Very NOW with the design set.
	Birch BB/B B	Birch ply usable only with an overlay as is not considered face grade	444	cccc	***	EI	\$\$\$	The multi-ply lay-up looks great with a clear lacquer but face must be overlaid with a laminate or veneer
	Gaboon B/BB	Strong, durable and extememly high moisture resistance. Lightweight with consistent coloured face. Economical.	4444	ccc	**	SEO	\$\$\$	With marine bonding and a covered exterior grade, it is perfect for high moisture areas such as kitchens, bathrooms and laundries. Also in covered outdoor areas. Made from 100% Okoume lumber.
	Feather BB/CC	Super lightweight and good for caravans or portable structures. Very cost effective. Weighs 340kg/m³ - less than half of MDF.	44	CC	å	EI	\$\$	Not decorative in itself. Needs an HPL or veneer overlay and would require clashing. Select this substrate for any project where you need to 'lose weight' such as mobile units, operable walls, caravans, ceiling linings, or when costs are an issue.

All MDF substrates are sourced from NZ sustainable sources with the exception of our MDF FR which is imported from Europe. All Plywood substrates are imported FORMALDEHYDE: SEO is the lowest rating, E1 is still regarded as 'low' and is our limit. Refer our separate cheat sheet on Formaldehyde Ratings.

0800 146 739 www.impeys.co.nz