



Materials Switching Guide, part of the Sustainable Packaging Choices Tool

As mentioned in the [Sustainable Packaging Choices Tool](#), please see below Materials Switching Guide.

Switching materials can support with reducing the overall amount of packaging used. However, it is important to consider the environmental impacts of the alternative materials and ensure the alternative does not increase the overall impact.

The table below shows the packaging material types and possible alternatives. The numbers show the equivalent mass, for the alternative that could be used to achieve the same or lower environmental impact. Any material switch which goes above this mass is likely to have no environmental benefit.

Switching example: Consider a switch from a 10g aluminium can to a glass bottle. The value for switching from aluminium to glass is 5.84. Therefore, 10g multiplied by 5.84 means the glass bottle must be 58.4g or lower to be an environmentally beneficial alternative.

Scores calculated by Anthesis use impact factors for the cradle to grave life cycle of each packaging material and include climate change, as well as land, water and resource use. Data was sourced from Valpak and Ecoinvent.



		Alternative material									
		Aluminium	Steel	Glass	HDPE	PE	PET	PP	LDPE	Paper and card	Wood
Current material	Aluminium		2.42	5.84	2.02	1.83	1.88	2.18	1.80	2.04	1.04
	Steel	0.41		2.42	0.84	0.76	0.78	0.90	0.75	0.85	0.43
	Glass	0.17	0.41		0.35	0.31	0.32	0.37	0.31	0.35	0.18
	HDPE	0.50	1.20	2.89		0.91	0.93	1.08	0.89	1.01	0.51
	PE	0.55	1.32	3.18	1.10		1.03	1.19	0.98	1.11	0.57
	PET	0.53	1.28	3.10	1.07	0.98		1.16	0.96	1.09	0.55
	PP	0.46	1.11	2.67	0.92	0.84	0.86		0.82	0.94	0.48
	LDPE	0.56	1.34	3.24	1.12	1.02	1.05	1.21		1.13	0.58
	Paper and card	0.49	1.18	2.86	0.99	0.90	0.92	1.07	0.88		0.51
	Wood	0.96	2.33	5.62	1.94	1.77	1.81	2.10	1.73	1.97	