# Cladding costs over a lifetime

There's more to selecting a wall or roof cladding than just the initial cost. BRANZ has been examining lifetime costs of claddings so designers can makes more informed choices.

#### BY IAN PAGE, BRANZ MANAGER ECONOMICS

**A WIDE VARIETY** of roof and wall claddings are used in new housing. Builders and designers are often aware of the approximate initial cost of these, but comparing costs over the lifetime of the claddings can be much harder.

#### Comparing different claddings

Figures 1 and 2 show the lifetime costs of the more common claddings spread over the estimated lifetime of each cladding to give an annual cost. This covers initial cost and maintenance expenditures.

The maintenance regime for each cladding and assumed durability in years is shown in Table 1. The analysis uses the mid-point of the average life range shown.

These costs do not allow for disruption caused by maintenance or replacement. For example, there may be temporary accommodation expenses when claddings are replaced. These costs will affect the short-durability sheet steel options more than the long-life materials.

#### Unpainted sheet metal cheapest

Unpainted sheet metal roof claddings are the cheapest. They have quite a short life

span, but their initial cost is very low, so their annual cost is also low.

For wall claddings, sheet steel is again the cheapest, followed by sheet plywood. The most expensive wall claddings are PVC, fibrecement and timber weatherboards. ➤





### Better-quality cladding lasts longer

Decisions are usually not made solely on cost. Appearance is also important to the owner. The more expensive, longer-lasting products usually maintain their appearance better than the cheaper materials.

While the first owners are very unlikely to still live in a house when the cladding needs replacing, owners will be concerned about resale value. This is why there is a predominance of more expensive materials, particularly for wall claddings. <



## Table 1 Lifetime costs of new house claddings

_				
		AVERAGE LIFE (YEARS)	INITIAL COST \$/M <sup>2</sup>	LIFETIME \$/M <sup>2</sup> /YEAR
	ROOF CLADDINGS			
	Corrugated steel 0.40 mm aluminium zinc, unpainted, no maintenance	20–30	30-40	\$2.5-\$3.5
	Corrugated steel 0.55 mm aluminium zinc, unpainted, no maintenance	30-40	30-40	\$2.5-\$3.5
	Aluminium corrugated 0.70 mm, unpainted, no maintenance	60-80	40-50	\$2.5-\$3.5
	Concrete tiles, repoint @ 35 years, replace some tiles	80–100	50-60	\$2.5-\$3.5
	Metal tiles PVF2, no maintenance	40-60	60–70	\$3.6-\$4.5
	Corrugated steel 0.40 mm, PVF2 precoated, repaint @ 10 years	40-60	40-50	\$3.6-\$4.5
	Corrugated steel 0.55 mm, PVF2 precoated, repaint @ 10 years	40-60	50-60	\$3.6-\$4.5
	Trapezoidal steel low rib 0.55 mm, PVF2 precoated, repaint @ 10 years	40-60	60–70	\$4.6-\$6.0
	Trough steel 0.55 mm, PVF2 precoated, repaint @ 10 years	40-60	70–80	\$4.6-\$6.0
	WALL CLADDINGS			
	Corrugated steel 0.40 mm, aluminium zinc unpainted, no maintenance	20–25	50-60	\$3.0-\$7.9
	Corrugated steel 0.55 mm, PVF2 precoated, repaint @ 10 years	40-50	70–80	\$3.0-\$7.9
	Sheet plywood and batten, painted, repaint @ 10 years	40-60	90–100	\$3.0-\$7.9
	Fibre-cement sheet 7.5 mm+ PVC jointing, painted, repaint @ 10 years	40-60	80-90	\$3.0-\$7.9
	Fibre-cement planks 180 mm, painted, repaint @ 10 years	30-40	110–120	\$8.0-\$10.9
	EIFS 60 mm polystrene, repaint @ 10 years	30-40	130–140	\$8.0-\$10.9
	Facing clay bricks, 70 mm, repoint @ 40 years	60–80	140–150	\$8.0-\$10.9
	Concrete bricks, repoint @ 35 years	60–80	140–150	\$8.0-\$10.9
	PVC weatherboard, no painting	25–35	150–160	\$11.0-\$15.0
	Fibre-cement weatherboard profile, 150 mm, painted, repaint @ 10 years	30-40	150–160	\$11.0-\$15.0
	Radiata pine weatherboard, painted, repaint @ 10 years	40-60	170–180	\$11.0-\$15.0
	Western red cedar weatherboard, unpainted, chemical wash @ 15 years	25–35	200–210	\$11.0-\$15.0