

## Paints

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Extraction and manufacture	
Impact of extraction	Varies by manufacturer
Energy use	<p>Embodied energy of paints is quoted as 98.1 MJ/kg for solvent-borne and 88.5 MJ/kg for water-borne paints. However, this depends on paint formulation, base material, preparation, paint type, and colour.</p> <p>Generally speaking, paint manufacture itself is not energy intensive. Almost all impacts come from the production of the raw materials that make up the paint.</p>
By-products/emissions	<p>Depending on formulation paints may give off VOCs during application and drying.</p> <p>Paints meeting Environmental Choice NZ environmental requirements are labelled with an Environmental Choice label.</p>
Sourcing	
Material sources	Paints are made in Wellington and Auckland from local and imported ingredients. Specialised coatings may be imported.
Availability	A wide range of paints is available throughout New Zealand.
Cost	Varies widely with quality, type and colour. Specialist coatings for fire and corrosion protection are expensive.
Transport to site	Paint is lightweight to transport and handle.
Construction/installation	
Health and safety during construction/installation	Paints give off volatile compounds which can contribute to asthma and other health problems. Even paints that can be labelled “low-toxic” may contain up to 250 volatile organic compounds per litre.
Ease of construction/ installation	Painting is labour intensive.
Adaptability	A painted surface can be easily repainted.
Performance	
Health and safety during life of building	<p>Though paint fumes are strongest while the paint is wet or drying, paints can continue to give off volatile compounds long after they are dry.</p> <p>Generally levels of paint fumes are less with water-borne paint formulations.</p>
Structural capability	Nil – not a structural element.
Durability*	Durability depends on base material, preparation, paint type, colour and surface orientation. As rules of thumb, for north-facing walls, light-coloured paint will last 5-7 years on timber and 8-10 years on plaster, and penetrating stain on timber around three years.
Maintenance rating	Regular recoating is required.
Moisture resistance	Moisture resistance is good if the paint coating is well applied and maintained.

Rot, mould and corrosion	Lichens and mosses will grow on damp, weathered surfaces.
Thermal performance	No contribution
Sound insulation	Nil
<b>Waste disposal/recycling/re-use</b>	
Re-use	Paint can't be re-used after application but paint cans can.
Recycling	Unused paint and paint cans can be recycled (the larger paint suppliers offer a return service, either for all customers or for trade painters).
Waste disposal	Unused paint if not able to be sent for recycling and particularly solvent borne should be disposed of as hazardous waste.

\* with normal maintenance