



Heads-up for construction

Glasswool insulation - batts and blankets

The DRC has noticed that there is some confusion and a fair pinch of misleading information available about formaldehyde emissions from glass wool insulation. This issue is relevant to meeting Requirement R32 of the Mullum Creek Design Guidelines which specifies that all bulk insulation have zero formaldehyde emissions or be third-party GreenTag or GECA certified.

Firstly, if you are using polyester batt insulation, it is highly unlikely to be associated with any formaldehyde emissions and are therefore fine to use at Mullum Creek. Polyester insulation batts include Autex GreenStuf and Bradford Polymax.

However, if you are using glasswool batts, it all gets a little more complicated. Glasswool batts are almost all made of recycled glass spun into fibres that are commonly 'bound' using phenol formaldehyde resin. Whilst manufacturers who use this technology may claim that their emissions are zero, this is only because the emissions from the finished product fall below the Australian threshold triggering designation of a hazardous material. As a result, they are not obliged to declare the emissions at all. To add context, Australian thresholds are much higher than those in countries where formaldehyde has been recognised as a dangerous carcinogenic material. For instance, the German and US Governments have changed their formaldehyde emissions standards based on recommendations of the World Health Organisation.

If you're interested, read the following extract from an article in the Australian newspaper discussing this issue: <http://www.theaustralian.com.au/news/inquirer/a-toxic-problem-ignored/news-story/f0b48cb6b98d509abb099a56a9afa383>

Other glasswool batts and roof blankets are bound using an organic binder. This binder doesn't contain any formaldehyde and the product itself is noticeably less yucky to handle. You will also notice that these batts are often marketed as being endorsed by the Australian Asthma Council (formaldehyde is a potent irritant to asthma sufferers). See [green](#) products in the table below.

Insulation Type	Brand	Product	Made In	Comment
Batt	CSR	Bradford Black	AUS	Organic binder.
Batt	Poly Glass Fibre Insulation (PGF)	Ecwool	Malaysia	Polyester based binder which has no formaldehyde, phenol or any artificial chemicals. Stiffer batts that are also less itchy making them easier to work with.
Batt	Knauf	Earthwool	UK	Ecose ^R binder, no irritant qualities during installation, GreenTag Level A certified, anecdotally stiffer batts than Bradford black which can be helpful in installation and will minimise slump.
Blanket	Knauf	Earthwool Spaceblanket	UK	Ecose ^R binder, no irritant qualities during installation, GreenTag Level A certified.
Loose cavity insulation	Knauf	Supafil	UK	No binders used, must be blown into a cavity and therefore potentially higher R values can be achieved in odd shaped cavities.

In early 2019 GECA revised their standards (in line with global best practice, and WHO advice), batts and blankets that were certified previously no longer meet their criteria, based on formaldehyde emissions amongst other markers, they can no longer carry their certification. Though some glasswool products are not completely without formaldehyde, they were classed as having low* VOC emissions (amongst other criteria) which previously qualified them for GreenTag level B or GECA certification. The products listed below in red are no longer able to be approved by Mullum Creek.

These products which to our knowledge do not have any relevant certification are highlighted in red.

Insulation Type	Brand	Product	Made in	Comment
Batt	CSR	Bradford Gold	Australia	Not certified either GreenTag or GECA
Batt	Fletcher	Pink Batts	Australia	Not certified either GreenTag or GECA
Blanket	Fletcher	PermaSTOP	Australia	Not certified either GreenTag or GECA
Blanket	CSR	Anticon	Australia	Not certified either GreenTag or GECA

* <http://mullumcreek.com.au/app/uploads/VOC-Table-1-2.pdf>