SAFETY FACT SHEET #1

UNDERSTANDING WHAT GOES INTO PINK® BATTS® GLASS WOOL INSULATION.

The ingredients list is reassuringly short.

- **Up to 83% recycled window glass.** We use window glass because there's an abundance of supply and window glass is the cleanest, and therefore most energy efficient, option for us to use.

- **Four naturally occurring minerals** that help with product performance and biosolubility:
  - Feldspar Sand
  - Limestone (calcium carbonate)
  - Soda Ash (sodium carbonate)
  - and Borax (sodium tetraborate).

- **A binder** that holds the fine fibres together so that the insulation recovers to its designed thickness after the bale's opened. The binder includes the dye to make the product pink or grey (for Pink® Batts® Silencer®).

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Let's look more closely at the binder.

Pink® Batts® insulation uses a Phenol-formaldehyde (PF) binder. There's been lots of misinformation about the safety of free formaldehyde in our finished products, so here are the facts.

- Formaldehyde is a naturally occurring compound that's part of the decomposition process. This means that there literally is formaldehyde in every living thing on earth.
- Formaldehyde is a known carcinogen (causes cancer) which is why it's one of the excluded compounds on the Living Building Challenge Red List.
- However, this is only of concern when we're exposed to levels of formaldehyde in concentrations that are too high for our bodies to metabolise.
- Formaldehyde emissions from Pink® Batts® glass wool insulation are around 0.020 – 0.040 ppm, lower than the limit for GREENGUARD Certification (a rigorous and comprehensive international standard for low emissions of volatile organic compounds (VOCs) into indoor air) and well below the Worksafe New Zealand Permissible Workplace Exposure limit. Pink® Batts® glass wool insulation is GREENGUARD certified.
- Numerous studies[1] have been completed on formaldehyde in building products. They've found that installing glass wool insulation had an effect almost too small to measure on the levels of formaldehyde present (see chart below). Once construction's completed, there's a steady decrease in formaldehyde levels. Around three months after the insulation's installed, any formaldehyde in the indoor air environment that is attributable to the insulation is negligible.

[1]Formaldehyde in the Indoor Environment Salthammer, Mentese, and Marutzky Chem. Rev. 2010, 110, 2536–257.

How different building components affect indoor formaldehyde levels.