

GLASS WOOL & ROCK WOOL HEALTH & SAFETY

ICANZ Fact Sheet 1

Glass wool and rock wool insulation products are excellent insulation materials and are fully safe to use under all conditions. Both insulation materials have been in world wide use for over 70 years, and during that time their manufacture and use have been extensively monitored and researched. It is clear from this monitoring and research that no serious health effects have ever occurred in those manufacturing, using or otherwise exposed to glass wool or rock wool insulation.

None of the products that compete with glass wool and rock wool in the marketplace have been subjected to the same amount of research to establish their safe credentials.

The handling of glass wool and rock wool may result in temporary itching and sensible work practices to minimise this are recommended. Dusts released during installation are not classified as hazardous.

Glass wool and rock wool are the most widely used insulation materials in Australia, New Zealand and worldwide.

New biosoluble fibre (FBS-1) formulations were introduced locally from 2000 and, in collaboration with the key Australian building unions, agreed work practices have been developed for their use on building sites in all applications.

Glass wool and rock wool insulation can be specified and installed with absolute confidence and the significant advantages of thermal, acoustic and fire protective insulation fully utilised.

MEDICAL RESEARCH

Internationally, over \$100 million has been spent in the last 25 years with 60,000 workers included in long term health research programs. This included two major research studies on Australian workers conducted by the Institute of Respiratory Medicine, Sydney University. The studies were focussed on workplace continuous exposure.

MEASURED SITE EXPOSURES

Comprehensive site monitoring has been undertaken to establish fibre and dust exposure levels under various application conditions.

Insulation dust is often more noticeable than other dusts during installation due to light reflecting off the glassy surface which could raise concerns in workplaces. Data gathered over many years has revealed fibre levels to be very low and consistently 10 times less than the accepted exposure limits.

IARC

In 2001 the International Agency for Research on Cancer (IARC), part of the World Health Organisation, convened an expert panel to review more than 30 years of scientific and medical evidence in relation to the potential health effects of glass wool and rock wool insulation. As a result, the IARC panel determined that glass wool and rock wool would be classified as Category 3 "not classified as carcinogenic to humans".

SAFE WORK PRACTICES

A Worksafe Australia SMF - Synthetic Mineral Fibres Code of Practice - which included glass wool and rock wool as well as refractory ceramic fibre, was established in 1990. This includes extensive training support in its use. This was one of the most stringent codes in the world.

In 2001 the Industry Code of Practice for the Safe Use of Glass wool and Rock wool Insulation Products was jointly developed with key Australian building unions and industry to reflect the latest medical and scientific facts and the introduction of biosoluble fibre formulations in Australian manufactured products. Unions included the Construction, Forestry, Mining and Energy Union; Communications, Electrical and Plumbers Union; and the Australian Manufacturing Workers Union. The code was upgraded in 2003 to reflect the new IARC classification.

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HEALTH & SAFETY

FBS-1 BIOSOLUBLE

Years of scientific and medical research has determined that respirable fibre bio-persistence was a key factor in determining relative insulation product safety.

In 1995 European manufacturers perfected the technology to make glass wool and rock wool fibres more biosoluble without impacting on product performance. The biosoluble products were launched after rigorous testing and peer review. Bio-persistence of these new products is now less than 10 days, well below the typical 20 days bio-persistence of everyday dusts encountered walking down urban streets.

In 1997 European regulators recognised that biosoluble fibre insulation was not a cancer risk to humans. This significant development was reported in the IWRAB Update Bulletin.

In 1999 Australian Hazardous Substances Standards similarly recognised biosoluble glass wool and rock wool insulation.

By 2001 Australian and New Zealand manufacturers were producing biosoluble glass wool and rock wool insulation after obtaining the technology rights.

In 2001 key building unions and industry agreed on a new Industry Code of Practice which recognised the biosoluble developments.

In 2003 the Industry Code of Practice was modified to include the IARC revised classification of glass wool and rock wool insulation. This IARC classification applies to all glass wool and rock wool insulation products whether biosoluble formulation or not.

Australian manufacturers of glass wool and rock wool have assessed and labelled their biosoluble products (FBS-1) according to the criteria of the National Occupational Health and Safety Commission (NOHSC): NOHSC:1008 (1999) and NOHSC:10005 (1999) and have assessed that their products are not classified as hazardous.

RECOMMENDED GUIDELINES FOR HANDLING AND INSTALLATION

Recommended work practices are outlined in the

2003 Industry Code of Practice for the Safe Use of Glass wool and Rock wool Insulation Products, jointly developed with key Australian building unions and industry. Recommended handling procedures are also clearly marked on packaging. Further information is available on product material safety data sheets or by contacting ICANZ.

Always read the label before opening packaging and commencing work. Detailed information and helpful hints are set out on the label both in words and pictograms.

Handling glass wool and rock wool insulation can result in temporary itching discomfort. Wear gloves and loose fitting long sleeve clothing to minimise direct skin contact where this is of concern.

It is good work practice to avoid exposure to any dust when working in poorly ventilated or enclosed spaces. In these instances wear a dust mask as directed on the pack.

When working overhead, there is always the possibility of free falling fibres, particles and dust. Wear suitable eye protection. See packaging for details.

Should any of the above exposures occur, follow the first aid procedures clearly listed on the packaging and in the product's Material Safety Data Sheets (MSDS).

Waste cut offs should be disposed responsibly according to local requirements.

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The Insulation Council of Australia and New Zealand was formed in 2004 to replace FARIMA as the Australian industry body. It was expanded to include New Zealand, reflecting the trend towards common insulation product standards, closer ties in research, testing and other trans-tasman building industry initiatives.

Note: OH&S Standards vary between Australia, New Zealand and local state requirements.

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