

TG2 – Asbestos in Recycled Crushed Concrete

TG Number:	TG2	Author:	Jayden Ellis
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1 INTRODUCTION

WARNING: Recently more and more requests are being received by the Civil Engineering Testing Laboratory industry to carry out testing work on crushed recycled concrete and demolition materials. In several instances these materials have been found to contain quantities of Asbestos.

This document has been created to help raise awareness of the issue.

2 ASBESTOS

Asbestos-based products were widely used in construction from the 1920s to the mid-1980s. Commonly used products that contained asbestos included

- Floor tiles –backing of vinyl, asphalt, rubber floor tiles, adhesives-for installing tiles.
- Water pipes, steam pipes, boilers, furnace ducts – insulation material,
- Textured paint.
- Sound proofing and decorative material – sprayed on walls and ceilings.
- Imitation brick cladding.
- Door Gaskets-furnaces, woodstoves, coal stoves.
- Plaster patching compounds-walls and ceilings.
- Roofing material, shingles and sidings.
- Gutters.
- Artificial ashes and embers.
- Fireproof gloves, stovetop pads, ironing board covers, and certain hair dryers.
- Automobile brake pads, linings, Clutch facings and gaskets.
- Cement Sheets, Millboard and Paper.

3 HEALTH RISKS

- Asbestos is a health risk if it becomes airborne.
- Fibres of small size (4 µm or less) when inhaled reach deep into the lungs.
- These fibres can cause diseases that can develop over 15 – 20 years.
- Health conditions caused by asbestos exposure include asbestosis, lung cancer, mesothelioma and other various cancers or pulmonary conditions. Anyone who suspects they were exposed to asbestos must inform their doctor and seek regular medical exams to test for signs of asbestos-related disease.

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4 TYPES OF ASBESTOS

- Chrysotile - white asbestos-most often used
- Crocidolite - blue asbestos-thought to be the most dangerous
- Amosite - brown or grey asbestos.

6 PRECAUTIONS AND ACTIONS TO BE CONSIDERED

- **Stop**

Do you know if the sample came from an Asbestos Free Site?

If you suspect presence of Asbestos, STOP all testing work, keep samples wet, do not crush or break materials down further, keep sealed until material can be tested for Asbestos.

- **Test before you Test**

Any recycled crushed concrete aggregate, demolition material or soil samples received from unknown sites or sources where there is no known definitive history or record of presence of Asbestos should be treated as potentially containing Asbestos.

Testing should be carried out immediately by the appropriate Laboratory.

Asbestos Testing Providers:

Dowdell and Associates, Auckland (09 526 0246)

Capital Environmental Services, Wellington (04 566 3311)

K2 Environmental Ltd, Christchurch (03 384 8966) or Auckland (09 377 1261).

- **Get more Information**

For more information visit

Occupational Safety and Health Guidelines for the Management and Removal of Asbestos

www.osh.govt.nz/publications/booklets/asbestos-management-removal/guidelines-13.asp

- **Seek Advice**

Seek advice from trained professionals and have a Hazard ID, Hazard Risk Analysis and Safe Operating Procedures (including appropriate PPE to wear) documented. Notify your staff and carry out the appropriate training. Each individual organisation will need to assess the risk and produce their own procedures.

- **Certified Handler**

Do you have the appropriate authority and training to handle Asbestos? There are two designations "Restricted Type Work" and "Not Restricted" Check with Department of Labour and seek more information.

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- **Disposal**

Materials containing Asbestos can only be disposed of in facilities approved by local authorities. This can be a costly exercise. Ensure that you follow correct procedure for packaging and labelling before you transport. You may elect to return to the organisation that requested the testing in the first instance.

Check OSH website before you transport or dump.

7 DISCLAIMER

The information in this publication is to encourage high standards within the civil engineering testing industry. The document is intended as technical information / warning for CETANZ members only and in no way replaces New Zealand standards or OSH requirements. CETANZ cannot accept any liability of any sort for unsafe procedures carried out by Companies who are members of CETANZ or organisations who claim to be following these guidelines. CETANZ assumes no responsibility for any harm, loss or damage, which may arise from reliance on the guideline and disclaims all liability accordingly. Specialist and/or legal advice should always be sought on any specific problem or matter.

REFERENCES

Department of Labour
BRANZ
Dowdell and Associates
Capital Environmental Services
K2 Environmental Ltd