

# Fact sheet: Use of glass fines



Environment  
Protection  
Authority Victoria



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Fact sheet

## Overview

Glass fines are an industrial waste from the glass reprocessing process. However, they can still be a useful product when used appropriately and fit for purpose.

This fact sheet provides examples of how glass fines can be used and explains what fit for purpose means.

## What are glass fines?

Small glass particles (generally less than 5 millimetres in diameter) recovered from processing or crushing, are known as glass fines or glass sand.



Glass fines sample

Source: *Dr Yat Wong, Swinburne University of Technology*

## What are the uses of glass fines?

Glass fines, if demonstrated to be fit for purpose and environmentally safe, can be used as a replacement for quarried materials in construction activities, including:

- engineered/structural fill material
- pipe bedding
- drainage
- washed sand in concrete for general paving works
- road construction (refer to additional resources, on page 2).



Glass sand, as per the Metro Trains Melbourne recycled glass specification, surrounding combined services conduits in a rail corridor  
Source: *McConnell Dowell of the Western Program Alliance*

### Important notice

The information in this publication is for general guidance only. It does not constitute legal or other professional advice and should not be relied on as a statement of the law. Because it is intended only as a general guide, it may contain generalisations. You should obtain professional advice for your specific circumstances.

EPA has made every reasonable effort to provide current and accurate information, but it does not make any guarantees regarding the accuracy, currency or completeness of that information.

### Further information

Contact EPA on  
**1300 372 842**  
(1300 EPA VIC) or  
[contact@epa.vic.gov.au](mailto:contact@epa.vic.gov.au)

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### What is the problem with glass fines?

The poor management of glass fines can pose a hazard to the Victorian community and environment.

The primary risks from use of glass fines are the impacts of **fugitive air emissions, dust and odour** on human health and the environment. Crushed glass fines are normally considered a nuisance dust. If the aerodynamic size of the dust is less than 2.5 µm it can, as with any particle this size, penetrate the lungs and have negative health impacts. Impacts to **surface water** can also be of concern if larger amounts are released into waterways.

Using contaminated glass fines may result in the **contaminants** present (e.g. ammonia, phosphorous, nitrates) entering the environment.

### What does “fit for purpose” use of glass fines mean?

- Glass fines **meet the specification** for its intended use, such as consistent quality and size.
- Glass fines have **less than 2% of physical contaminants** such as plastics, wood and paper and are free from residue that can produce odour.
- Glass fines are **below the chemical contamination thresholds** as per [Solid industrial waste hazard categorisation and management](#) (EPA publication IWRG631).



Glass materials collected through Victoria's kerbside system used to make local roads  
Source: *Sustainability Victoria*

### Inappropriate use of glass fines

- Producers and users are responsible for ensuring glass fines meet the required specification for the intended use.
- **If the glass fines do not meet the required specifications or are contaminated, they remain industrial waste.**
- Dumping, depositing or permitting the dumping or depositing of industrial waste at sites that are not licensed or authorised to receive such material is an offence under the *Environment Protection Act (1970)*.
- The inappropriate use or storage of glass fines may result in Environment Protection Authority Victoria (EPA) issuing a remedial notice to remove the material and return the environment to its previous condition. **Such cleanup activities can be very costly.**
- Contraventions of the *Environment Protection Act (1970)* can lead to the issuing of infringement notices, or in serious cases prosecution. Persons found guilty of contravening the Act may receive significant penalties of up to \$800,000 (or more if the offending is found to be ongoing).



Contaminated glass fine sample  
Source: *Environment Protection Authority Victoria*

### Additional resources

- [Use of recycled materials for road construction](#) (VicRoads Technical Note TN 107)
- [Solid industrial waste hazard categorisation and management](#) (EPA publication IWRG631)
- [Industrial waste](#) fact sheet (EPA publication 1624)