

## FACT SHEET

FILTRATION GLASS USED FOR  
MUNICIPAL WATER TREATMENT:  
A 2<sup>ND</sup> LIFE FOR GLASS COLLECTED  
VIA CURBSIDE RECYCLING

Éco  
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# MARKET OUTLETS FOR FILTRATION GLASS USED FOR MUNICIPAL WATER TREATMENT

Various types of filters can be used to treat drinking water and wastewater. This kind of treatment consists in forcing water through a filter that retains the suspended particles. Currently, silica sand or zeolite filters are most often used, but glass is gaining ground, particularly in France and Great Britain.

Glass performs better than traditional filters, and its electrostatic properties prevent the proliferation of bacteria.

## TARGET MARKET AND POTENTIAL POOL OF CUSTOMERS

Municipal organizations constitute the main customer base for this material. In Quebec only, there are 236 municipal water treatment plants that produce drinking water from surface water, while Quebec's 2015-2025 infrastructure Plan indicates investments in the tens of millions of dollars to improve the entire drinking water and wastewater treatment network.

That, and information on the current use of sand filtration, leads us to believe that Quebec's municipal sector constitutes an estimated 18,000 t/year market for filtration glass.



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## MARKET

Given the potential of 18,000 t/year of filtration glass that can be used for municipal water treatment in Quebec, the market is worth between \$1.2 million and \$1.9 million at the current average retail price ranging from \$65/t and \$105/t<sup>1</sup>.

### COMPETING MATERIALS

- Silica (sand)
- Garnet (sand)

### MARKET FOR FILTRATION GLASS

The market for water filtration glass is relatively new in North America, while it is already well-established elsewhere in the world. In Great Britain, for instance, filtration glass used in municipal water treatment has grown significantly since 2010 (approximately 6% per year), particularly due to stricter requirements for wastewater disposal.

### POSITIVE MARKET PENETRATION INDICATORS

- At this time, there are no North American manufacturers that are certified for marketing filtration glass used for drinking water treatment.



- In North America, the market for water treatment equipment is estimated to grow by approximately 8%/year over the next five years.
- Quebec is planning major investments in the modernization and construction of water treatment plants.

<sup>1</sup> Amounts indicated are in Canadian dollars.

## TECHNICAL CRITERIA AND CERTIFICATION

### CERTIFICATIONS

- **NSF/ANSI 61 Drinking Water System Components:** North American certification standards.
- **AWWA B100 Granular Filter Media Certification:** North American certification specifying the characteristics of filtration media.

### CRITERIA

Criteria vary depending on what the filtration glass will be used to treat (wastewater, drinking water). Generally, the criteria specify:

- Granulometry
- Gravity (glass density/water density)
- Solubility
- Hardness of the material

It is important to note that the physical characteristics of the filtration glass must comply with provincial and federal regulations on water quality standards and the properties required for wastewater disposal. In Quebec, for example, Regulation Q-2, r. 40, on the quality of drinking water requires that output water turbidity meets levels of between 1.0 and 5.0.



All the details at [www.ecoentreprises.qc.ca/glass](http://www.ecoentreprises.qc.ca/glass)  
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