

# Carpet Recycling: Your Flooring Renovation Just Got Greener

By James Alisch, Mira Floors and Interiors

6.5 billion pounds of carpet are dumped into North American landfills each year. Metro Vancouver alone contributes 90 million pounds. Mountains of worn-out carpet removed from common areas and suites in apartment buildings are a large contributor to the problem.

But it doesn't have to be that way. Carpet is recyclable; it can be broken down into its basic components and used to make new carpet and other products. The synthetic fibres used to create most carpets are produced using non-renewable petrochemicals. Recycling allows carpet producers to create fewer virgin fibres and, in turn, use less petroleum.

Until recently, there was no sustainable infrastructure in place for carpet recycling in Canada and the costs to get started were prohibitively expensive. In 2010, 95% of commercial carpet went to landfills, with the remaining 5% exported to processing plants in the USA. Thanks to a partnership with Aspera Recycling, Mira Floors and other Canadian flooring providers can now offer carpet recycling services when removing carpet.

## The Recycling Process

Carpet has two main recyclable components: The face fibre and backing. The process to recycle these components starts with the carpets being bundled and taken away in a bin, similar to waste disposal bins currently being used when removing flooring. The bins are transported to a processing plant where a spectrometer is used to determine the carpet fibre type. Carpets are then separated by fibre type and the face fibres are sheared off. Separating by fibre type is essential as each type requires a different processing technique.



Carpet spectrometer in use.

The three most common fibre types are Nylon 6, Nylon 6,6 and Polypropylene. Nylon 6 and 6,6 fibres are especially valuable to carpet recyclers. Nylon 6 can be depolymerised and recycled into carpet again and again. Once processed, both Nylon 6 and 6,6 recycled fibres can be used in the production

of everything from bearings to toothbrush bristles. Using nylon as an input is a cost effective practice when petroleum prices are high. Polypropylene fibres can be used as feedstock for polypropylene products such as plastic pipes and patio furniture.

The second main component, the backing, is separated from the fibres in the shearing process. Backing can be turned into more backing or separated into its main ingredients, latex, polypropylene and calcium carbonate. Once separated, the calcium carbonate can be used in cement production. Chip-foam carpet underlay, which is 100% recyclable, is also collected and baled together to be used again in the creation of more carpet pad.



Carpet shearing machine used in recycling process.

## Why consider recycling for your building?

With an increase in resident and strata demand for sustainable practices, carpet recycling is a great way to go beyond your commitment to the environment. Implementing a carpet recycling program can contribute to achieving LEED or BOMA BEST certification for your buildings. Carpet recycling supports Metro Vancouver's target goal of increasing the waste diversion rate from 55% to 70% by 2015. Provincial Extended Producer Responsibility (EPR) regulations for recycling carpet are expected within the next two to four years. Regional regulations could come sooner, if Metro Vancouver supports recommendations to follow the State of California's lead and implement carpet EPR regulations. Starting now gives you an opportunity to be ahead of your competitors in sustainability.

*James Alisch is an owner of Mira Floors and Interiors. Mira provides selection, supply, and installation of all flooring surfaces. For further information about carpet recycling for your next flooring project, please contact James at 604.856.4799 or [james@mirafloors.com](mailto:james@mirafloors.com). 🏠*

A rectangular box containing the Mira Floors &amp; Interiors logo, which consists of a stylized diamond shape above the text 'MIRA FLOORS &amp; INTERIORS'. Below the logo is the tagline 'your greater vancouver flooring solution' in a smaller font. At the bottom of the box is a small image of a white van with the Mira logo on its side. Below the van is the website 'mirafloors.com' and the phone number '604.856.4799'.