

Answers to Your Questions on Recycled Rubber

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Recycled rubber plays a vital yet largely unseen role in our lives. We interact with it on a daily basis and it enables us to do many of the things we love the most.



■ What is recycled rubber?

Recycled rubber is rubber that has been derived from scrap materials such as used tires.

Recycled rubber gives us innovative ways to reduce waste while solving important challenges – from facilitating softer playground surfaces, to reducing the chance of injuries for athletes, to building lower-impact hospital floors for nurses on their feet all day.

U.S. scrap rubber manufacturers recycle roughly 110 million tires annually – or one tire for every three people in the U.S.



■ How is it made?

Recycled rubber is produced from scrap tires through a straightforward process. There are two main ways in which this happens:

- **AMBIENT SHREDDING** uses powerful, interlocking knives to chop tires into smaller pieces.
- **CRYOGENIC PROCESS** uses liquid nitrogen to freeze them at sub-zero temperature. These cold temperatures cause the physical properties of the tire to change, and it becomes very brittle. The tire is then placed in an enclosure in which powerful hammers smash the tire apart.

The non-rubber portions of the tire are also recycled. For example, the steel beads that give the tire its shape and structure are recovered by recyclers and processed into specification grade product used by steel mills for new steel.



■ Why should we be recycling scrap tires?

Tires, designed to be virtually indestructible under a variety of conditions, have historically been difficult to dispose of or recycle.

In most cases, old and worn tires were replaced with newer tires and dumped illegally in lakes, empty lots, along the sides of roads, and in nature in potentially sensitive habitats. Others were added to landfills.

Today, thanks to innovations in manufacturing, scrap tire rubber is used to make new tires, playground surfaces, equestrian mats, and rubberized asphalt—among other products.

Tire recycling is an economically sound, environmentally-friendly activity that can contribute to the reduction of a product's overall carbon footprint by anywhere from four to 20 percent when compared to virgin plastic resins.

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