

Asphalt Shingle Recycling

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What is asphalt shingle recycling?

It is becoming increasingly common for shingles to be recycled instead of going to a landfill. Shingle recycling is the process of taking asphalt shingles from roof tear-offs and reusing them in other products, ensuring the material does not end up in landfill.

What are the benefits of asphalt shingle recycling?

Shingle recycling is economically viable, convenient where available, and saves valuable resources from being sent to a landfill. Recycled asphalt shingles have most commonly been used in pavement, which offsets the need for new asphalt and aggregate, and additional uses are being explored. Some manufacturers have developed or are developing processes to produce asphalt roofing shingles containing recycled materials from post-consumer and post-manufacture waste shingles, thereby creating a potential circular economy for asphalt roofing shingles. Asphalt shingle recycling can create jobs for recycling locations, reduce costs for paving, and allow homeowners to make a positive environmental contribution.

In what products are recycled asphalt shingles used?

The primary use of recycled shingles is to make roads, typically by adding pulverized shingles to the other asphalt used in pavement. In many cases, this may actually improve the pavement quality. Recycled shingles can also be used as an input to make roofing products or road maintenance products, or to produce energy.

How many asphalt shingles are recycled in roads?

One of the best estimates of asphalt shingle recycling into roads is developed by the National Asphalt Pavement Association (NAPA), whose annual survey of asphalt mixture producers and state asphalt pavement associations estimates the use of reclaimed asphalt shingles (RAS) into asphalt pavement. Their most recent survey conducted in 2019¹ estimates 921,000 tons of asphalt shingles were recycled into asphalt pavement. This is equivalent to approximately 368,000 residential roofs.² In comparison, the same NAPA survey estimates that 89,200,000 tons of reclaimed asphalt pavement (RAP) is recycled into asphalt mixtures for paving. Therefore, asphalt shingle recycling can be increased, which in turn would prevent a substantial amount of waste from being sent to a landfill.

What other options are available for recycling asphalt roofing besides using asphalt shingles in pavement?

In addition to use in pavement, asphalt roofing products can be used as:

- an ingredient in cold patch formulations used for pothole repair,
- an additive in manufacture of new asphalt shingles, underlayments, and roll roofing products,
- aggregate for the base layer in road construction,
- a component in the production of roof pavers,
- a dust and erosion control agent for rural roads and construction sites,
- and a fuel supplement in incinerators for energy generation.

Which states allow recycled asphalt shingles (RAS) into their pavement? Where is this practice most prevalent?

The National Asphalt Pavement Association (NAPA) annual survey of asphalt mixture producers and state asphalt pavement associations provides information about recycled asphalt shingle use in each state. In their 2019 survey,¹ RAS usage was reported in twenty-eight states. RAS usage has been reported every year from 2010 through 2019 in each of the following states: California, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, and Washington. The top ten states with highest estimated RAS usage are Texas, North Carolina, Pennsylvania, Wisconsin, Indiana, Illinois, Oregon, Kentucky, Missouri, and Tennessee.

How can I find an asphalt shingle recycler nearby?

Shingle recycling is available in most major markets in the United States and in some locations in Canada, and new sites continue to open. There are multiple resources for finding a recycler, including online at www.shinglerecycling.org and www.earth911.com, or by calling 1-800-CLEANUP. You can also use local resources for finding businesses or conduct an internet search. No matter which method is used to find a recycler, contact them directly to confirm their current capability to accept and process shingles for recycling.

Is every asphalt shingle recycler listed on ShingleRecycling.org or Earth911.com?

No! If you know of a location that is not listed, please let ShingleRecycling.org or Earth911.com know by emailing info@shinglerecycling.org or info@earth911.com.

What if I can't find an asphalt shingle recycler nearby?

Send an email to info@shinglerecycling.org or visit [Earth911 Recycling Search](http://Earth911.com).

Do roofing contractors or do-it-yourselfers have to separate material as it is removed from the roof?

Call ahead to your recycler to determine what your recycler allows. Each recycler has specific rules regarding requirements for separating shingles from other materials. It is good practice to keep shingles separate from other construction debris, such as wood or metal or other disposed materials.

What about nails?

You do not have to pull out nails — most recyclers use powerful magnets on the shingle grinder to separate nails from shingles and then recycle the nails as well. Confirm with your local recycler on its capabilities and requirements for accepting shingles for recycling.

How much does recycling cost?

Recycling costs vary. It is typically cheaper than landfilling and might even become less expensive if materials are separated properly.

I do not want a large roll-off container in my yard. Will recyclers work with dump trailers?

Many recyclers are flexible, and options can be determined by calling to ask.

Should I bring up recycling with my contractor?

Many roofing contractors will market their past success in recycling shingles. Regardless, any roofing contractor should be open to the conversation and should confirm the ability and logistics for recycling the shingles involved in your project.

¹Williams, Brett A., J. Richard Willis, and Joseph Shacat (National Asphalt Pavement Association, Greenbelt, MD), “Asphalt Pavement Industry Survey on Recycled Materials and Warm-Mix Asphalt Usage: 2019,” September 2020.

²Estimate is based on assumption the shingles disposed during a typical single-layer roof replacement project weigh 2.5 pounds per square foot of roof area, and the average size of a typical roof is 2000 square feet.

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