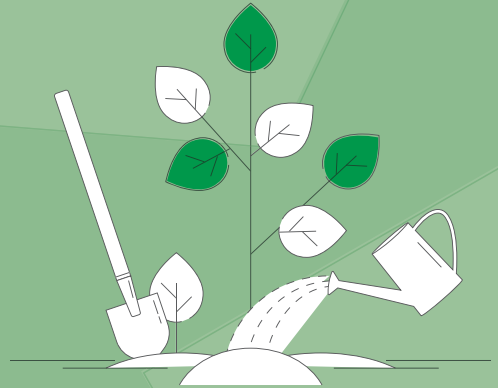


ONE ROOF AT A TIME



SUSTAINABILITY REPORT 2022

Sustainable, High-Performance Roofing Shingles



Sustainable Roofing

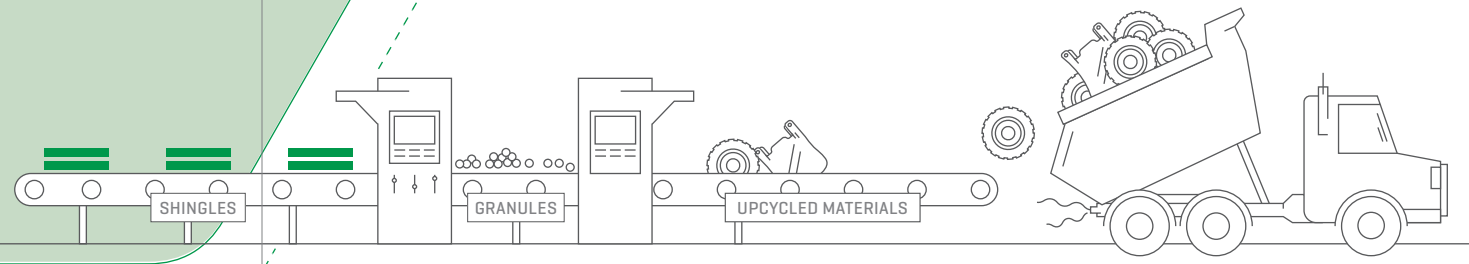
56%

of homeowners want all building materials eco-friendly.

3M STUDY, 2021

If there's a better, more sustainable way to make a roofing shingle, we intend to find it.

At Malarkey, we strive simply to make the best shingles in the most sustainable way. It's a dual mission. First, build the industry's highest-performing shingle. Then, aggressively offset its footprint. Sustainability without sacrificing performance.



Longer Lasting Shingles

SUPERIOR SHINGLE TECHNOLOGY

The first step in making a sustainable shingle is to make it last longer.

It's why we invented rubberized asphalt roofing shingles – stronger, more flexible, and rubber tough for superior all-weather resilience, durability, and impact resistance, and longer product life.

UP TO 130 MPH
WIND PROTECTION

2X larger nailing area and enhanced wind warranty for peace of mind against wind blowoffs.

UP TO CLASS 4
HAIL IMPACT RATING

All Malarkey shingles are impact rated by Underwriters Laboratory (UL). Class 2, 3, and 4 rated shingles [highest rating possible] can withstand a 1.5", 1.75", and 2.0" ball dropped 12 times from 14, 17, and 20 feet, respectively, without showing signs of fracturing to the back of the shingle.

UP TO 35%
GREATER TEAR STRENGTH

Versus the industry standard [ASTM D3462] to better resist tears and cracks.

Versus the industry standard [ASTM D3462] to better protect against UV aging and hail damage.

UP TO 65%
GREATER GRANULE ADHESION





90+%

Waste Diversion
at all Malarkey Plants

Cleaner Manufacturing

FEWER EMISSIONS, LESS WASTE



OREGON PLANT - 1956
Herbert Malarkey begins a new manufacturing venture named Herbert Malarkey Paper Company, which later becomes Malarkey Roofing Products.

93%

91%

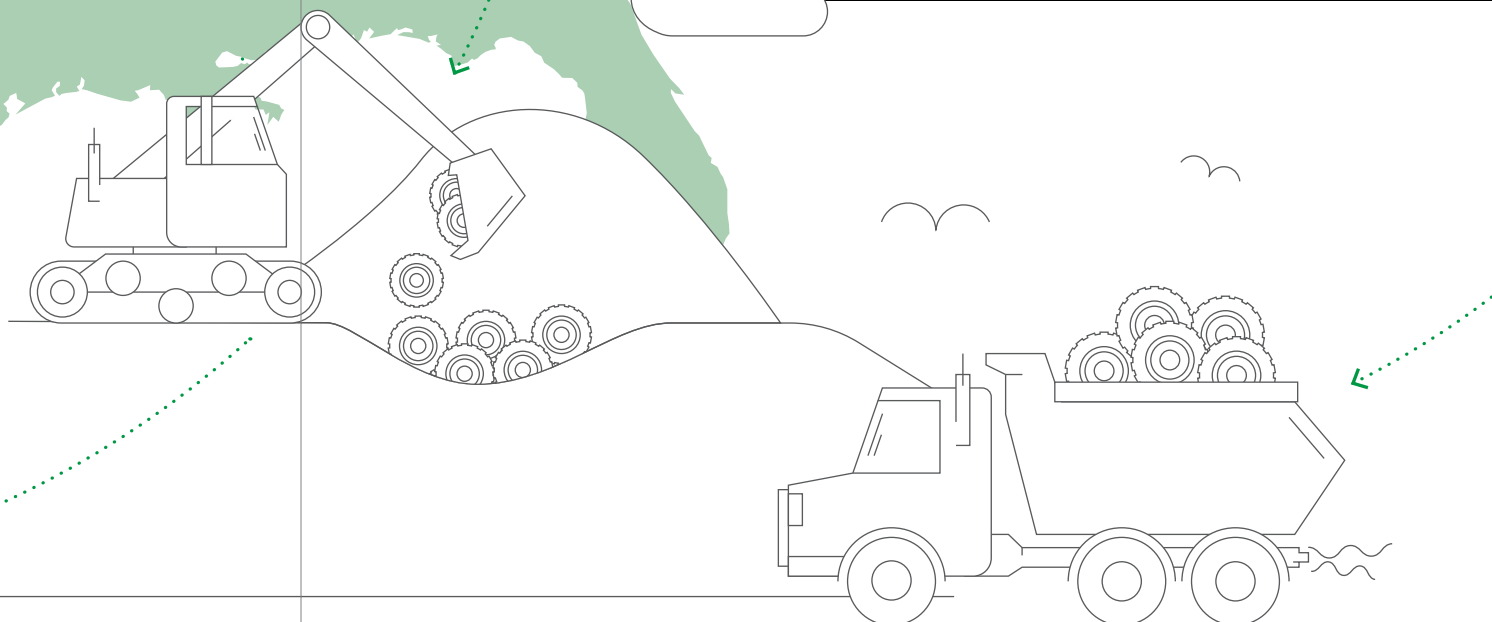
CALIFORNIA PLANT - 2003
Malarkey expands production with new facility in South Gate, California.

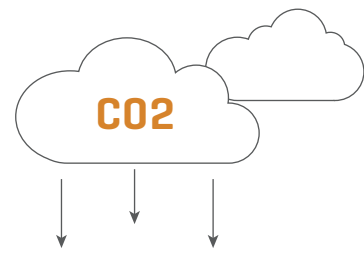
OKLAHOMA PLANT - 2011
Malarkey expands production with new facility in Oklahoma City, OK.

90%

Malarkey's NEX[®] Rubberized Asphalt is a better & cleaner technology, resulting in fewer emissions

than the oxidized asphalt used to make standard roofing shingles. Malarkey is also GreenCircle Certified for Waste Diversion from Landfill at each of its facilities.





**~5 Rubber Tires
UPCYCLED PER ROOF**

The number of tires and plastic bags diverted from the landfill with each average-sized roof install [30 squares] of Malarkey shingles.

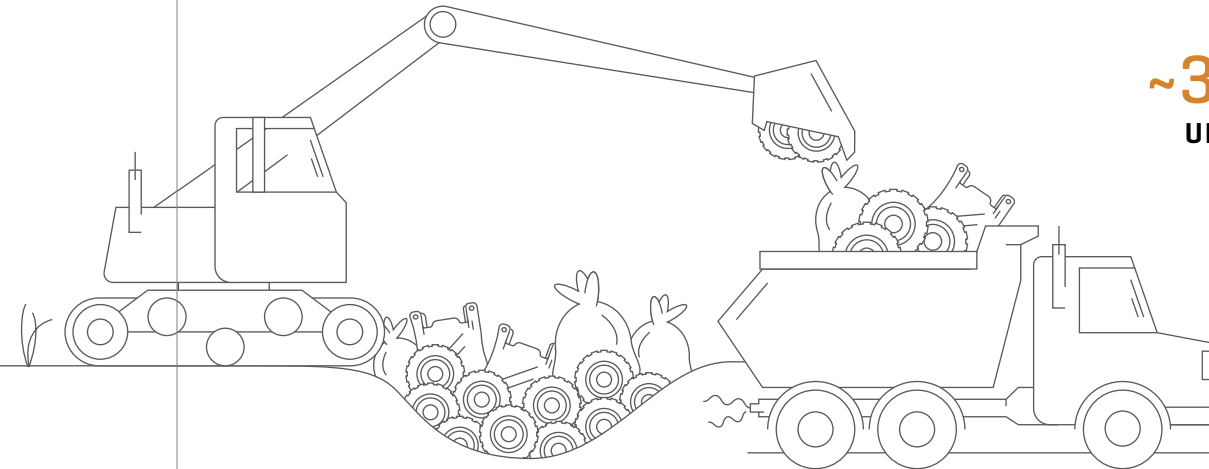
**~3.2K Plastic Bags
UPCYCLED PER ROOF**

RECYCLED CONTENT THAT IMPROVES PERFORMANCE.

Lower Carbon Materials + Landfill Reduction

Recycled content can sometimes diminish product quality. Not so with our shingles.

Malarkey shingles also benefit from carbon black, an anti-aging ingredient inherent in the tires we upcycle. Carbon black is added to tires to protect the rubber from ozone and UV damage. It's part of the reason tires last (and stay black) so long. By upcycling tire rubber into our shingles, we too benefit from carbon black's anti-aging properties – shingles last longer, landfills last longer – a true win-win!



'Each year, automobiles produce ~246M waste tires in the US, approximately 11% [27M] end up in the landfill.'
– Popular Mechanic magazine

**~27M Tires
END IN LANDFILLS**

LANDFILL + CARBON REDUCTION OF MALARKEY SHINGLES VS. STANDARD SHINGLES

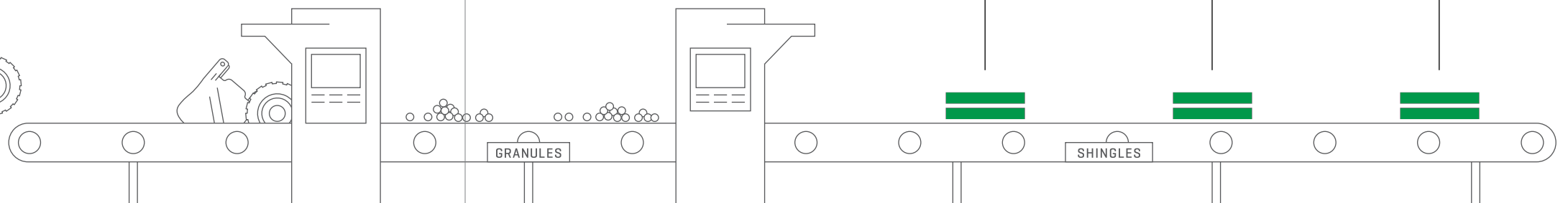
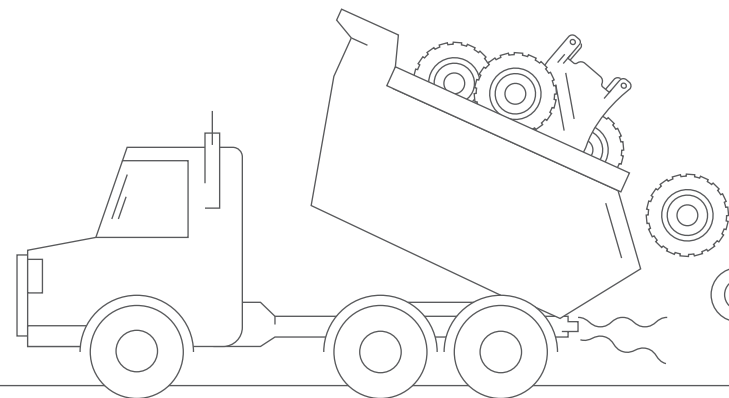
Approximation assuming standard roof of 30 squares.

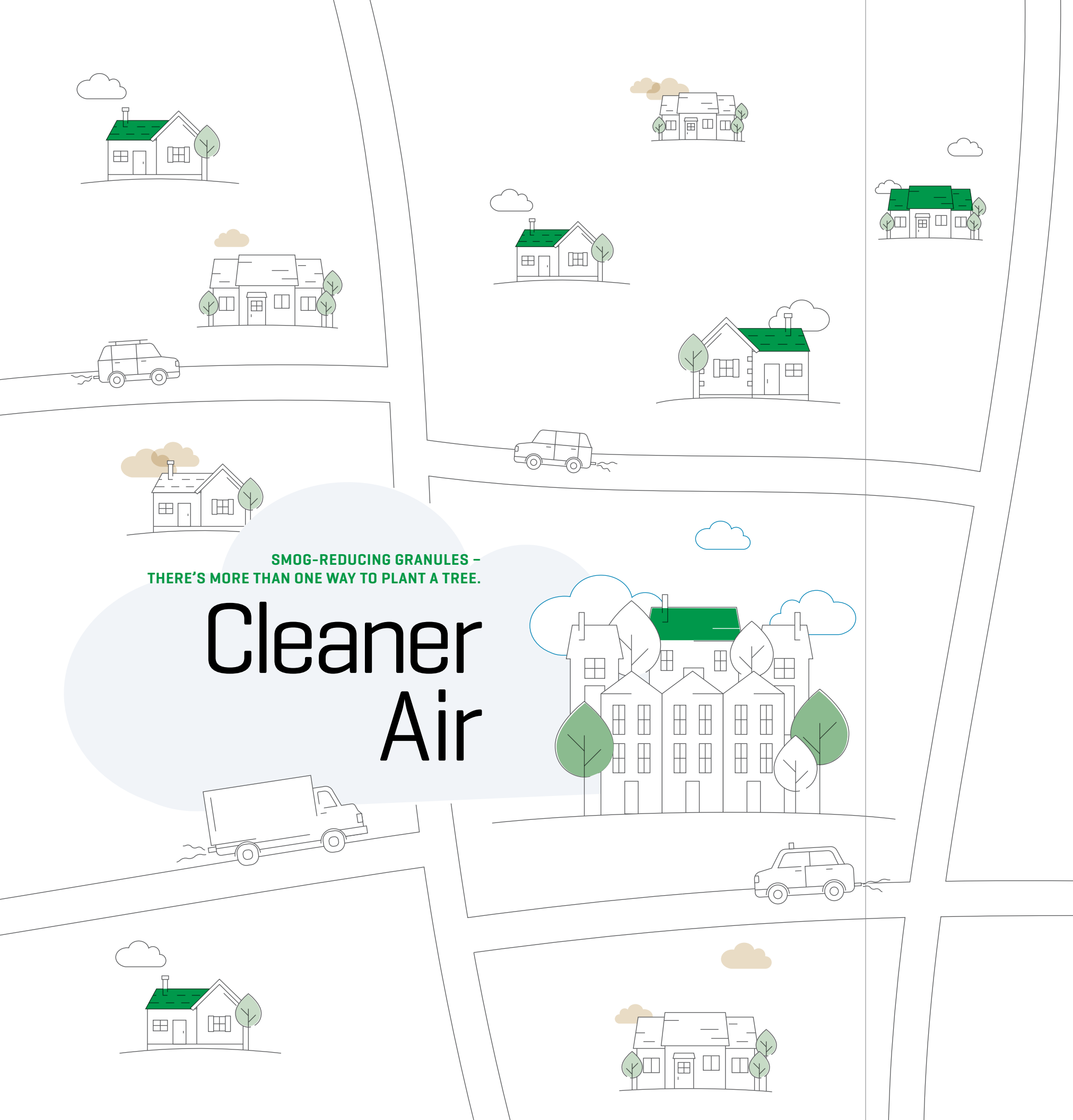
Malarkey Shingle Lines	Highlander™ NEX® Highlander™ NEX™ AR	Vista® Vista® AR	Legacy™ Legacy™ Scotchgard
Upcycled Rubber Tires	4	5	6
Upcycled Plastic Bags	2.9K	3.2K	4.0K
Carbon Reduction	20-26%	19-20%	4-8%



DECARBONIZING THE ROOF

A product's embodied carbon content is what contributes to its global warming potential. In the Environmental Product Declaration (EPD) compiled by the Asphalt Roofing Manufacturer's Association (ARMA) and GreenCircle Certified, Malarkey shingles were shown to have significantly less carbon content than standard shingles.





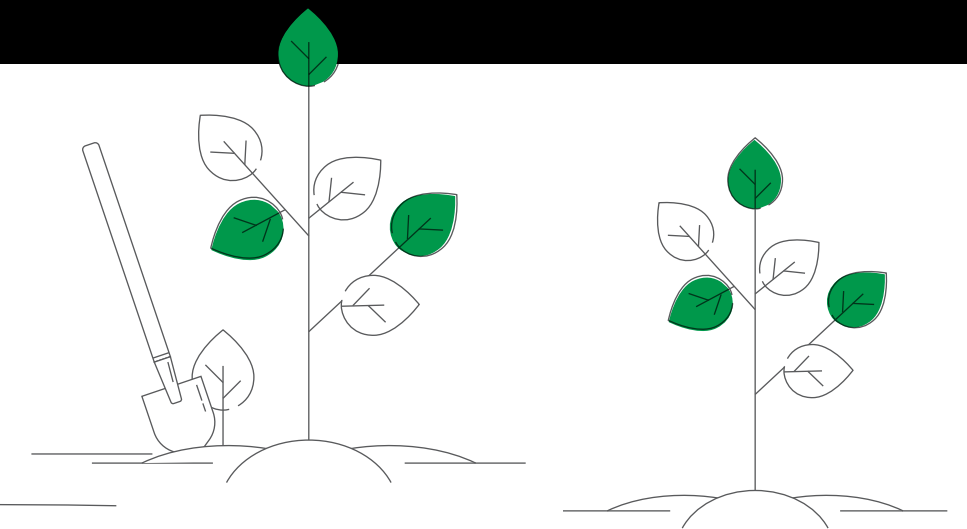
4 in 10

Americans live in counties with unhealthy air pollution levels.

STATE OF THE AIR REPORT, AMERICAN LUNG ASSOCIATION, 2021

Clean air is a concern of us all, which is why we integrate smog-reducing granules atop all our shingles.

These innovative granules harness sunlight to convert smog gases (NO₂ - nitrogen dioxide) into salt ions, actively cleaning the air of emission pollutants, like planting trees on your roof.



~2
TREES 'PLANTED'

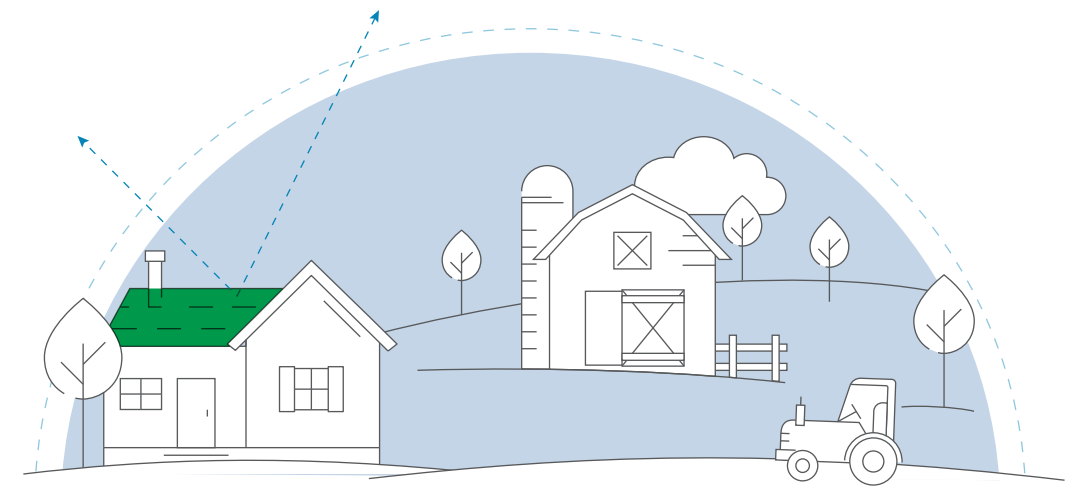
Per roof to help clean the air by adding smog-reducing granules atop our shingles.

20-25%

The addition of 3M™ Cool Roofing Granules can enable shingles to reflect 20-25% of the sun's energy.

What is the Urban Heat Island Effect?

Roof cooling colors reflect ultraviolet (UV) rays to help reduce solar heat entering the home, as well as help offset the Urban Heat Island Effect, which describes elevated temperatures in urban environments (caused by heat-absorbing surfaces like roads, roofs, and buildings) that, according to the EPA, can increase summertime peak energy demand, air conditioning costs, air pollution, and greenhouse gas emissions.



Cooler Roofs

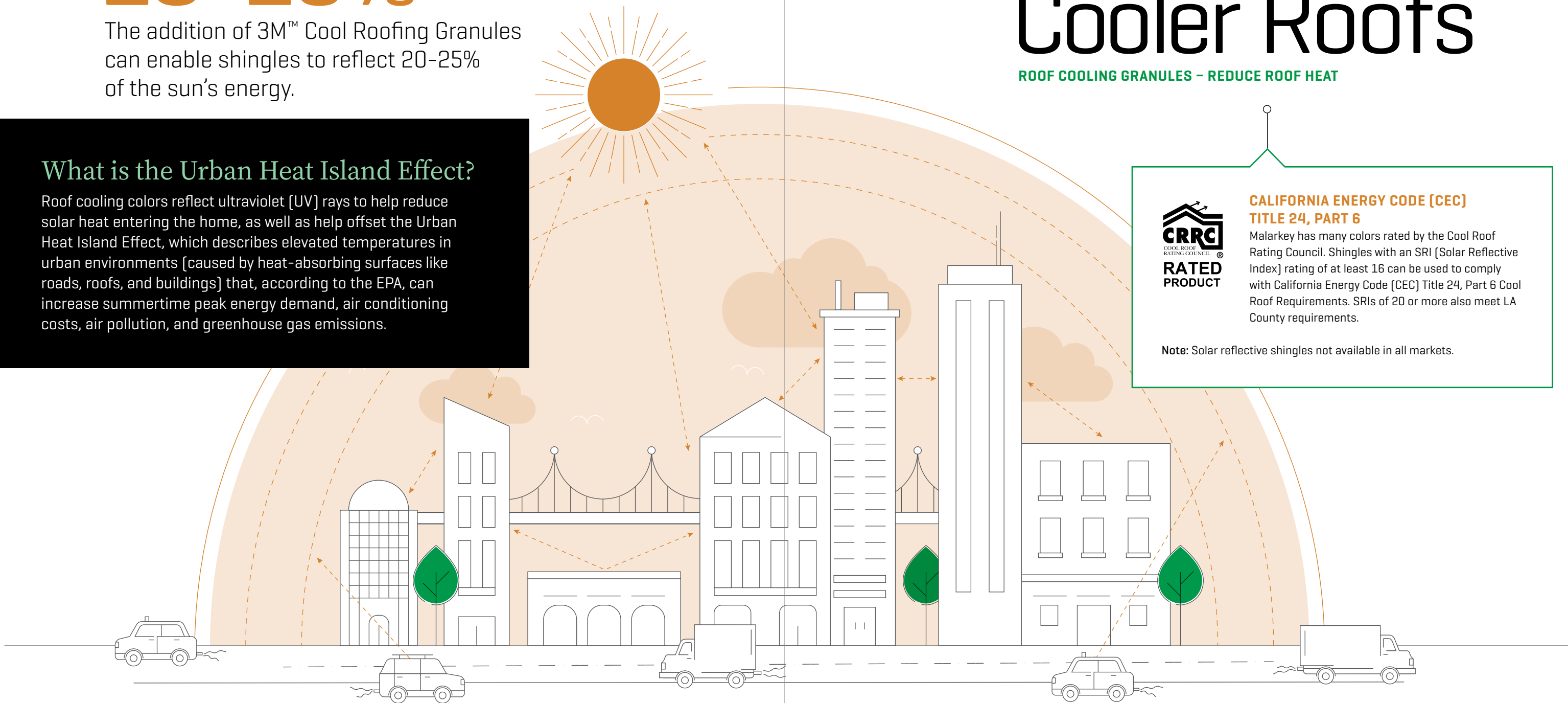
ROOF COOLING GRANULES - REDUCE ROOF HEAT



CALIFORNIA ENERGY CODE (CEC) TITLE 24, PART 6

Malarkey has many colors rated by the Cool Roof Rating Council. Shingles with an SRI (Solar Reflective Index) rating of at least 16 can be used to comply with California Energy Code (CEC) Title 24, Part 6 Cool Roof Requirements. SRIs of 20 or more also meet LA County requirements.

Note: Solar reflective shingles not available in all markets.



IT'S NOT WHAT YOU SAY, IT'S WHAT YOU DO.

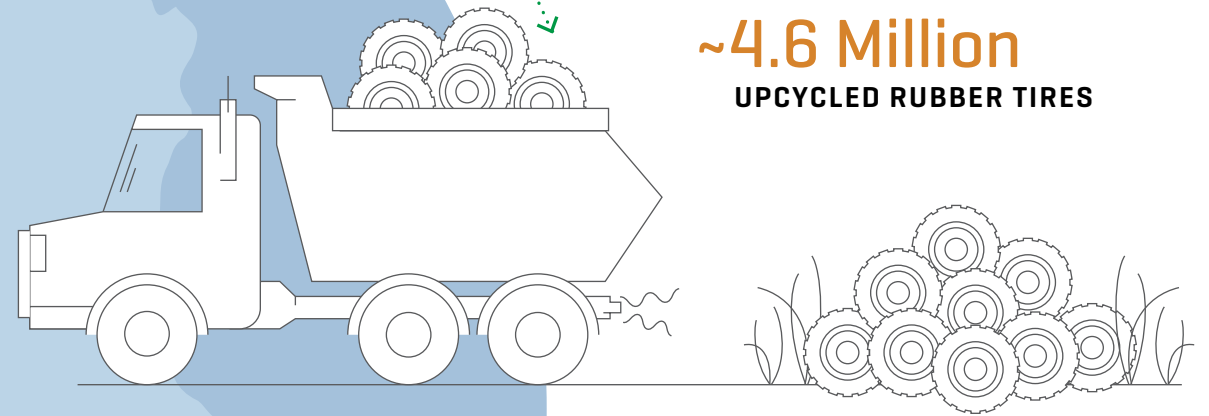
Sustainability requires action,
and we each can play a part.

Environmental Stewardship

MALARKEY ECO OFFSET

Approximate rubber tires diverted from the landfill by incorporating upcycled rubber into our shingles.

~4.6 Million
UPCYCLED RUBBER TIRES



~3.2 Billion
UPCYCLED PLASTIC BAGS

Approximate plastic bags diverted from the landfill by incorporating upcycled plastic into our shingles.



One Roof at a Time...

"Granted, it's just one roof, but if everyone starts choosing a shingle that reduces landfill waste & fights air pollution, who knows what the end result will be."

- JAMES MARTINEZ, HOMEOWNER

Approximate trees 'planted' to help clean the air by adding smog-reducing granules atop our shingles.

~1 Million
'PLANTED' TREES

Equivalent to adding a New York Central Park to 55 cities.



64%

of homeowners value sustainability and want eco-friendly products to be just as available as their non-eco counterparts.

3M STUDY, 2021

