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## METRO MONEY

# Recycled-Asphalt Company Sees Open Road Ahead

Queens startup is 'using material from the city streets and putting it back on the city streets'



Asphalt being prepared at Green Asphalt on Sept. 25 in Long Island City, Queens. The company is the nation's only asphalt producer dedicated to entirely recycled product. PHOTO: BESS ADLER FOR THE WALL STREET JOURNAL



By

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If your street is among the 1,322 lane miles getting paved by the city this year, the asphalt was likely produced largely from crushed stone mined from New Jersey quarries and sticky black oil shipped from distant refineries. But not if it came from Green Asphalt. At this Queens startup, asphalt is produced entirely from used pavement milled off local lanes.

"We are using material from the city streets and putting it back on the city streets," says Nima Roohi Sefidmazgi, the company's vice president and head of business development.

Last week, Mr. Roohi Sefidmazgi took me on a tour of the small plant in Long Island City overlooking Newtown Creek, starting with its ashy mountains of rubble. The New York City Department of Transportation and private construction firms pay to drop more than 100,000 tons of millings at the plant every year.

An earth mover dumped a load of rubble into a waiting crusher. "It could have come from Martin Luther King Jr. Boulevard in the Bronx!" the young scientist marveled.

After the city passed a 2015 law mandating at least 30% recycled asphalt in pavement used on most government projects, area plants converted to accommodate the new specifications. But Green Asphalt remains the only plant in the city—and perhaps the nation—producing 100% hot-mix recycled asphalt.

Production is a simple affair. Crushed millings pour from a towering hopper and up a conveyor belt into a 20-foot spinning drum to be heated over a giant flame. The hot mix is rejuvenated with soy oil and transported up a second belt into a silo before it is fed into waiting trucks.

"It's not rocket science," says Mr. Roohi Sefidmazgi.

But figuring out how to make decent pavement entirely from reclaimed millings was a struggle. Mr. Roohi Sefidmazgi, who literally has a Ph.D. in asphalt, says the company spent years after

its 2011 launch experimenting with crushing methods, temperatures, material mixtures and filtration devices to develop its patent-pending processes.

The work was dirty and frustrating. But Mr. Roohi Sefidmazgi didn't mind. "I love asphalt," he said.

He has given asphalt samples mounted on plaques as gifts to friends and family.

He even loves the smell. "If there is a cologne and someone you love smells like that, it reminds you of all the fun times you had with him or her," he said. "Asphalt is the same."

Green Asphalt got its big break in 2015, when the city approved its products for use by both the DOT and private contractors handling city projects.



Asphalt being prepared at Green Asphalt. The company produces 150 tons an hour and more than 100,000 tons a year—enough to pave the equivalent of 120 lane miles. PHOTO: BESS ADLER FOR THE WALL STREET JOURNAL

Richard Jones, director of specifications for the city's Department of Design and Construction, says recycled asphalt has many advantages. Its use preserves resources and reduces truck traffic on city streets, for instance. "We'd like to see it increase," he said.

Green Asphalt produces 150 tons an hour and more than 100,000 tons a year—enough to pave the equivalent of 120 lane miles. Its pavement covers stretches of College Point Boulevard in Queens and Carroll Street in Brooklyn, for example.

Still, that's small potatoes in the asphalt world. The area's largest plant, the DOT-owned Hamilton Avenue Asphalt Plant, can produce 450 tons an hour and up to a million tons a year—enough to resurface 1,000 lane miles.

And Green Asphalt's largest customer remains C.A.C. Industries, a construction firm in Queens. Green Asphalt's president and founder, Michael Capasso, owns and runs both companies.

Asphalt that is 100% recycled is still considered "the bleeding edge of the industry" and is rarely used in the U.S., says Joseph Shacat, director of sustainable pavements for the National Asphalt Pavement Association (NAPA).

Traditional asphalt makers can't produce the product without investing in an expensive plant conversion, he says. And New York is the only major U.S. city to approve its use. The material is still seen as risky by more conservative agencies. What if a street paved with 100% reclaimed asphalt doesn't perform? "No one wants to be the official that approved that design," Mr. Shacat said.

Mr. Roohi Sefidmazgi says third-party lab tests show that local streets paved with 100% recycled asphalt are performing on par with those paved with standard mixes.

And Green Asphalt's product offers one obvious advantage: price. To produce one ton of virgin asphalt, you need roughly \$10 worth of stone and \$18 worth of binder, according to averages from NAPA.

Because Green Asphalt doesn't buy these materials, it typically charges about 30% less than the \$70 a ton demanded for standard asphalt, says Mr. Roohi Sefidmazgi.

Within 20 years, he predicts, every New York street will be paved entirely with recycled asphalt. “You’re going to run out of mines, you’re going to run out of oil.” he said. “This is why it’s here to stay.”

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