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The Recycling Times

HADCO Group's Recycling Division Monthly E-Newsletter

HADCO Recycling introduces End-of-Life Tyre Recycling to our portfolio

The new "End-of-Life" Tyre Recycling Facility from HADCO Recycling Division is set to launch at the end of December 2022. The tyre recycling facility will be a part of Ecoimpact Co. Limited's portfolio and will be based at UNIT #6, FWC, Rajkumar Trace, Freeport.

The establishment of this facility came as a result of Trinidad and Tobago's growing problem with improper management of used and end-of-life tyres in recent years. These tyres pose environmental and health risks to the population due to flooding hazards and associated effects, as well as toxic fumes released when tyres are carelessly dumped/burned in landfills and residential areas.

With an estimated 1.5 million used tyres that need to be disposed of annually in Trinidad and Tobago, this new initiative is designed to collect thousands of used tyres and process them to be recycled into raw materials for new rubber and steel wire-based products.

"WE ARE EXCITED TO ADD ANOTHER RECYCLING FACILITY TO OUR PORTFOLIO. WE BELIEVE THIS TYRE RECYCLING INITIATIVE WILL HELP CLEAR UP MUCH NEEDED LANDFILL SPACE ACROSS THE COUNTRY."

Kevin Whiteman - Managing Director, Recycling Division, HADCO Group

Why Recycle Used Tyres?

Rubber tyres have many applications after their lifecycle on a motor vehicle. The steel and rubber components of tyres can be extracted (almost 100%) and processed for use in new products such as steel wiring coils and mesh, rubber mats for gymnasiums, dancefloors, and flooring for playgrounds.

As reported in Forbes, over 1 billion end-of-life tyres are generated every year, only to accumulate in landfills around the world. The fact that one rubber tyre takes from 50 to 80 years to decompose into the earth, makes the global problem of used tyre disposal a complex one.

The circular-economy solution provided by HADCO's End-of-Life Tyre Recycling Facility will engage vehicle owners, garages and tyre shops across Trinidad and Tobago to introduce a structured collection mechanism for used/end-of-life tyres.

Tyres collected will be recycled by shredding and the materials converted to commercial by-products (rubber crumbs and rubber powder, steel, and fibers) for export and local use.

Rubber crumbs and rubber powder have numerous secondary uses and applications, including ground cover under playground equipment, running track material, and as a soil additive in sports and playing fields, injection molding products, coatings, roofing materials and various asphalt applications.

Aerial view of a tyre graveyard located in Al Jahra, Kuwait
Image Credit: Forbes

Did you know: It can take 50 to 80 years for scrap tyres to fully decompose?
Image Credit: The Tyre Yard

The entire population of Trinidad and Tobago will benefit from the solution proposed for collecting and recycling end-of-life tyres, since the burning of tyres and indiscriminate dumping affects us all by polluting communities, blocking watercourses and impacting the country's overall air quality; with the attendant environmental, health and safety hazards posing risks that affect all citizens.

Learn more about our End-of-Life Tyre recycling process on the following page.

Our End-of-Life Tyre Recycling Process

Here's a simple summary of how our new End-of-Life Tyre Recycling Facility plans to recycle Trinidad and Tobago's used tyres.

1. Tyres are collected through our partner network

To prevent any more tyres from ending up in our landfills, we will acquire tyres that are unfit for use on vehicles and bring them to our facility.

2. Steel wires are separated from the tyres

Machinery pulls out the steel wires from inside the tyre. These can be melted down and used again in other forms of steel-based products.

3. Tyres are shredded into rubber crumbs and ground into rubber powder

The used tyres will undergo multiple processing cycles to break down the material into rubber crumbs and a fine rubber powder which will be used locally as well as exported.

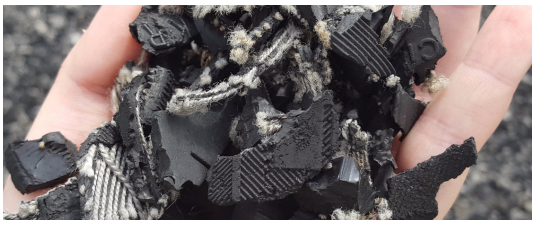
In the initial stage, tyres are fed into a machine that shreds them into rubber crumbs. This can be sold as a form of burning fuel called "TDF – tyre derived fuel" to cement kilns, incinerators, and other big industrial plants looking for cost-effective fuel alternatives to coal.

There is a grinding stage to further process the rubber crumbs into a rubber powder.The rubber powder granules pass under a powerful magnet that separates any small steel fibres which may have been missed in the previous steps. It is important to remove the smaller steel fibres as this can compromise the quality of the rubber granules.

This rubber powder is used for rubber flooring solutions used in children's playrooms, gymnasium flooring, stadium running tracks, AstroTurf, and modified asphalt.

Tyre wire is extracted from the beads of the tyre
Image Credit: Renecal

Scrap tyres enter the shredding process
Image Credit: Tiresspa



Pieces of rubber crumbs
Image Credit: Ecoster

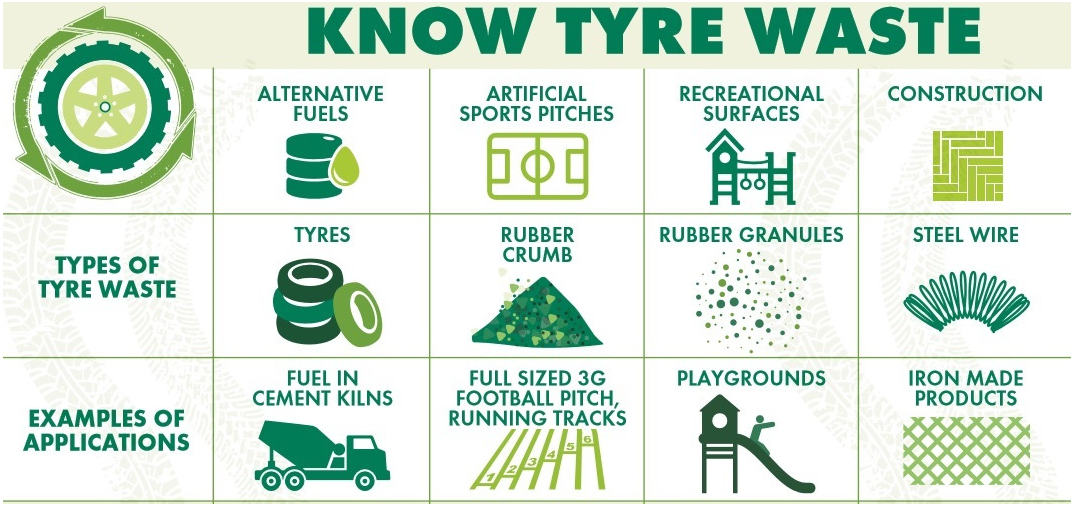
Rubber powder can be ground to various granulated sizes for different uses
Image Credit: Biocaucho

Recycled rubber powder use cases

Please note the summary above is a broad and simplified version for ease of understanding.

Get Involved!

HADCO's Recycling Division is excited at yet another opportunity to dispose of waste and help clean up our country. The output from the recycled tyres will be used locally and exported.
If you wish to collaborate with us, please contact (868) 633-3609 or email ecoimpact.info@hadcoltd.com.



Summary of products that can be made from recycling used tyres
Source: Tyrerecovery

Start of the tyre recycling process
Source: Reuters

"WITH THE ADDITION OF THE NEW END-OF-LIFE TYRE RECYCLING FACILITY, WE WILL REPURPOSE OUR COUNTRY'S WASTE TYRES INTO NEW RUBBER AND STEEL RAW MATERIALS FOR LOCAL AND EXPORT USE!"

Marguerite Simon-Williams - Operations Manager, Ecoimpact Co. Limited, HADCO Group

For more information on our other recycling services visit us at www.hadcoltd.com/divisions/recycling/.