



Is there a market for Recycled Rubber?

EcoRub AB
Kabelgatan 79
943 31Ojebyn
Sweden
+46 911 76661
www.ecorub.se



YES!!!

And the market is very large!

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Why ?

EcoRub ecological rubber has many advantages!

- **Easy to recycle**
- **Compatible prices**
- **Low weight**
- **Equal or better properties than competing materials**
 - **Excellent protection against UV-light and ozone – very good aging resistance**
 - **Very good flex values**
 - **Very good impact resistance**

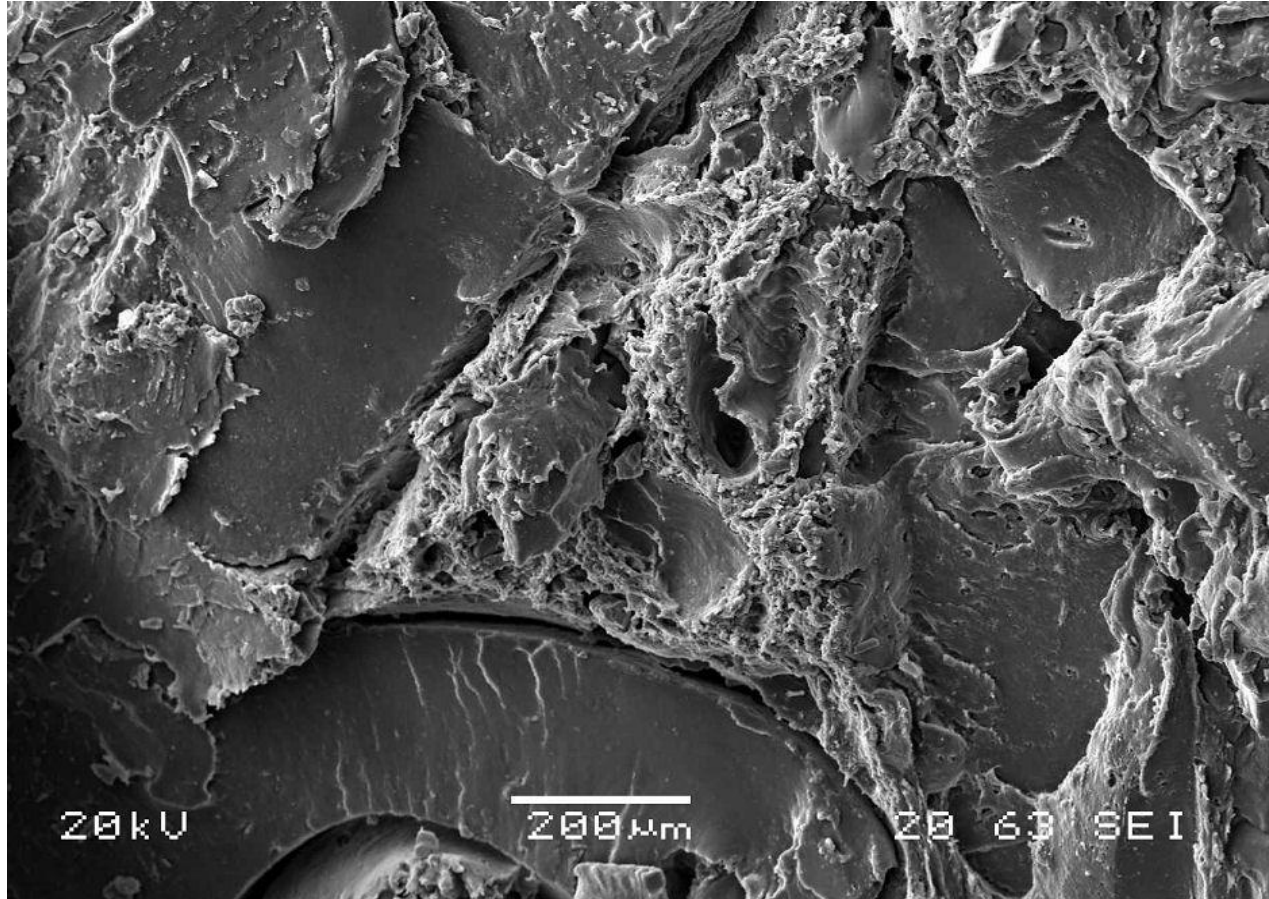


Our patented technology

- We have a patent for a method with copolymers to bond PE and PP in a strong way to rubber particles
- We have used this method for 15 years in three companies in the US
- The patent is approved in the US and in 8 of the EU-countries
- We have a large amount of "blends" that gives this material a vast amount of different properties.
- We can tailor properties for customers demands



Very good bonding



< 1,2 mm rubber crumb



Production methods

- All processes than can be used to produce "plastic" products can be used.
 - Injectionmoulding
 - Extrusion
 - Vacuumforming
 - Heatforming
 - Heat laminating
 - Welding
 - ...



Today's market

- The production of this material in the US was a few years ago about 15 000 metric tons.
- About half of it was produced for the automotive industry – mainly aftermarket.
- Half of the remaining part was for farming industry
- We have three companies in the US that are producing calendared materials according to our technology.



Plans for Europe

- Just now we are making a stock market introduction selling shares in EcoRub AB to gather capital for a laboratory and a pilot scale plant for producing pellets for mould extrusion.
- Next step will be an other stock market introduction to gather capital for a plant to produce rubber sheets and a large scale compounding plant.



Our business idea

- We see ourselves as a producer of tailored raw material in form of pellets and sheets of ecological rubber and biocomposites.
- We will be engaged as (part) owners in a few companies to be able to show the market what types of products that can be produced



Our market approach

- We are engaged in building a cluster of companies in northern Sweden to seek the market for ecological rubber



”Klustret för ökad användning av ekomaterial”
 (“Cluster for increased use of eco material”)

www.ekomaterial.se



This cluster has its "heart" in northern Sweden with companies that are able to construct and produce products made of ecological rubber.

We have large companies engaged (as for example National Gummi AB, Lundgrens AB, Ragnsells AB, Trelleborg AB) that have a vast experience in the market for rubber products. We will engage more companies.

We have just now three designing companies engaged in the cluster (as for example Apokalyps labotek, Form for You and DesignLabland).

APOKALYPS LABOTEK - ALT is a design studio based in Malmö, Sweden. ALT is Petra Lilja and Jenny Nordberg, both industrial designer. ALT works with design, environmental issues, consumption and communication.
14/01 APOKALYPS LABOTEK is awarded in the Wallpaper Design Awards 2010 for **Best Recycling!**



Where is the market?

- We have pinpointed (2006) products for the automotive market in Europe which as a total would be at least 200.000 tons. Since then we have developed new "blends" that can be used as coachwork details and that market we have not yet been able to calculate.
- Market outside automotive industry is at least as large
 - Farming industry
 - Ponds and depots
 - Roofing
 - Flooring
 - Furniture
 - Injection moulded "black plastic products"
 - ?

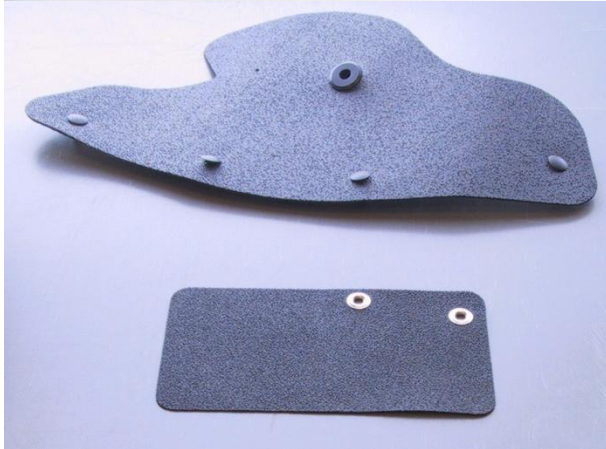


Applications in US automotive industry 2005

APPLICATION	OEM	STATUS
Anti-vibrational pad	Ford	Approved
Splash guard	Ford	Approved
Air deflector shield	Ford	Approved
Radiator seal	Ford	Approved
Anti-splash shield	Ford	Approved
Body plug	Ford	Approved
Close-out-shield	Ford	Approved
Body plug	DaimlerChrysler	Approved
Close-out-shield	GM	Approved
Radiator seal #2	Ford	Development
Splash shield#2	Ford	Development
Gas tank strap pad	Ford	Development
Splash shields (2)	GM	Development
Body plug	GM	Development
Grommets	DC/Ford/GM	Potential
Over-slam bumpers	DC/Ford/GM	Potential
Strut dust cover	DC/Ford/GM	Potential
Anti-skid pads	DC/Ford/GM	Potential
Dust cover boots	DC/Ford/GM	Potential
Fender liner	DC/Ford/GM	Potential
Mud flaps	DC/Ford/GM	Potential
Bumper stops	DC/Ford/GM	Potential
Emergency brake pedal pad	DC/Ford/GM	Potential
Wheel Well liner	DC/Ford/GM	Potential



Examples of automotive parts



Examples of other articles



Environmental impact

- "Ecological rubber" reduces oil consumption significantly, as up to 90-95% of the material can be reused polymers
- The discharge of CO₂ can be reduced significantly
- Our material can easily be reused again and save oil and CO₂ once more



Advanced pre-commercialisation of eco-rubber material

Funding from EU-Ecoinnivation for 3 years.

“The overall objective of the proposed project is to dismantle some key barriers in the pre-commercialization phase, thus paving the way for EcoRuB’s innovative and forerunning hybrid material on European markets resulting in an decrease of Europe’s ecological foot print in terms of storing and burning used tires.”

Participants:

EcoRub AB Kabelgatan 9 943 31 Öjebyn

Forschungszentrum Karlsruhe GMBH

Business Interest Association ACS

Tyres Herco SA

This project is not yet approved by the EU, but we are very hopeful and believe it will start soon.



Thanks for listening

Åke Paulsson

Innovator, majority owner and managing director

EcoRub AB

www.ecorub.se

ake@ecorub.se

*Please do not hesitate to contact me
for more information and questions!*

