

When coming to investigate competitors to a de-vulcanization technology one may find many (thousands) technologies listed over the internet. This does not consider technologies for recovery of energy, such as pyrolysis, glowing of rubber to create products, fine graining rubber to be used as filler etc.

Creating a large table of all the de-vulcanization technologies will make it long, hard to read, incomprehensive and therefore, in our view pointless. One may find reports and scientific work spreading over tens or even hundreds of pages discussing and try to compare such technologies. It gives no practical method so required when coming to consider a business.

Moreover, when adding all other technologies for rubber recovery one is exposed to a vast world with no guiding lines to find one's way in it.

Instead, we aim to list here a few key questions anyone who has interest in entering the field of rubber de-vulcanization should ask oneself. When having the answers to these questions one will be able to verify if the technology is Industrially scaled; cost effective; has good properties and was inserted to high end products such as tyres; are there any environmental issues involved in the entire production process; what the suggested business model is; and does it suit the interested party; etc.

We give LEVGUM's answer to each of these questions. We urge any potential licensee to check this against any technology they may consider as competing with LEVGM's technology and make their own judgment.



# **Question: Is this technology currently on Industrial scale?**

Any alleged competitor should be asked if starting this month, he can supply 200MT/month continuously.

LEVGUM Ltd. can do so starting immediately.

#### Question: Is this technology economically viable?

Any alleged competitor should be asked what the variable cost is to produce 1MT of de-vulcanized rubber using their technology? Including realistic cost of raw material, i.e., rubber crumb in the relevant size, cost of electricity and labor. And, on what Industrial scale these figures are based?

LEVGUM Ltd. cost is \$500 per 1MT. Including all the above. Based on 17 years of production day in and day out of hundreds of MT per month with our Indian license, our former EU and US licensees.

## Question: Has this technology been tested in high end products such as tyres?

Any alleged competitor should be asked if their de-vulcanized rubber been implemented in OTR, truck and passenger tyres?



LEVGUM Ltd. can state its DRC (De-vulcanized Rubber Compound) has been implemented successfully in Solid tyres, truck and OTR tyres and passenger tyres for years now.

#### Question: Is this technology indeed environmentally friendly all the way through?

Any alleged competitor should be asked if the technology is indeed a green one. That in no stage this technology harms the environment. Including when preparing chemicals to be used in it, sewage left, emissions made during the process or processes required to produce material for the de-vulcanization process.

LEVGUM Ltd. process is a dry chemistry process. It has no leftovers, no sewage, and no emissions. The chemical required for the process (called EDV for Ecological De-Vulcanizer) has also been made in a dry chemical process leaving no sewage and creating no emissions. The materials used for making this EDV are of shelf chemical produced by millions of MT per year for other uses.

## **Question: what is the business model offered?**

Any alleged competitor should be asked what is the type of business they wish to establish. A license; selling the devulcanized rubber; partnership; building the facility; etc.



LEVGUM Ltd. grants licenses. We do not charge a license fee but sell some EDV in advance to create commitment (shelf life is for many years).

### Question: What is the expected ROI time and what is it based upon?

Any alleged competitor should be asked what is the expected ROI time on the investment made in adopting his technology in a specified market.

LEVGUM Ltd. can safely state, based on licensees selling prices, investments made and with enough safety margins, over almost two decades, that when adopting its technology ROI time is expected to be shorter than 3 years.