# NATURAL RUBBER, SYNTHETIC RUBBER AND NEOPRENE RUBBER

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#### DESCRIPTION

- Elastic polymer.
- It comes from latex.
- Trees: Hevea Brasiliensis and Castilloa elástica.
- Elastic, water repellent and electric resistent.

#### **HISTORY**

- Discovered by the mayans and aztecs.
- Banned in the 15th century.
- La Condamine rediscovered it in 1735.
- It was a success in Europe.
- In 1791 it was first commercialized.

#### RECYCLING

- Different processes to recycle it.
- Very flammable.
- It creates pollution.
- · Cause of diseases.
- E.g: Rubber floors for parks.





## **USES**

- · Tires.
- · Wheel rims.
- Hoses.
- Conveyor belt.









#### **DESCRIPTION**

- Artificial elastomer.
- Obtained mainly from petroleum.
- · Elastic material.
- Good qualities and cheap.
- It is recyclable.





#### **HISTORY**

- Created in 1909 by Fritz Hofmann.
- Similar structure to natural rubber.
- People were very pleased.
- Cheaper than natural rubber.
- 2/3 of today's rubber is synthetic.

#### **PROPERTIES**

- Solid, flexible, durable.
- It hardens when it's cooled.
- It can be molded when heated.
- Resistant to heat, light and chemicals.
- Heat and electrical insulator.



## **USES**

- Car tires.
- Flexible rubber toys.
- Paint.
- Shoe soles.
- Rubber gloves.
- Tubes and hoses.













#### **DESCRIPTION AND PROPERTIES**

- Synthetic rubber.
- It's produced by polymerization of chloroprene.
- It has good chemical stability.
- Flexible over a wide temperature range.
- It is colourless.
- Resistant to sun, climate and ozone deterioration.

#### **ORIGINS AND HISTORY**

- It was invented by <u>DuPont scientist</u> (1930).
- · First name: DuPrene.
- It smelled bad and was expensive.
- Problems were solved and was a success.
- It name was changed to neoprene.

#### RECLYCLING

- Waste burying techniques.
- · Incineration.
- Some brands do recycling processes.
- Using old neoprene to create shoes, t-shirts...





## **USES**

- Laptop sleeves.
- Wetsuits.
- · Small boats.
- Boots.







