

## ***What is Rubber?***



Rubber is indispensable in modern life. It being a highly elastic organic material can be stretched eight times to its original length. It has innumerable uses in houses, industries, and hospitals and in farms and play things. The history of rubber is probably as old as that of nature. Three million years old fossils of the rubber producing plants have been found.

Rubber is obtained from special plants. In fact, there are more than four hundred kinds of plants and all form the juice in different quantity, of which rubber is made. The plant which gives the highest yield is called 'Hevea-Brasiliensis', it is approximately thirty-five meters high. Another high yielding plant is Castilla.

The rubber tree originally grew in Brazil. But in the late 1800, an Englishman managed to smuggle some seedlings which were cultivated in London's Kew Garden and some in Ceylon. World's biggest supplies of natural rubber now, is Malaya.

Rubber is made of white liquid latex which is obtained from the tree by "tapping". Latex seeps out through spiral cuts made in the bark of the tree. It, then, is made solid (coagulated), dried and exported as sheets of raw rubber. You will be surprised to know that this is a weak, sticky and not very elastic material. Its strength and elasticity are improved by the addition of sulfur in a process known as vulcanization or curing of rubber. The strength and wear-resistance of rubber are also improved by the addition of carbon black, silica and cotton flock. Natural rubber, vulcanized and filled is a widely used elastic-material. But it is rather expensive to produce.

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The first useful synthetic or artificially made rubbers were produced during the World War II. Synthetic rubbers are used in industries as they are resistant to chemicals. Silicon rubbers are a fairly recent development. Their molecules of silicon atoms unlike those of carbon in others make it resistant to the extreme heat and cold and, therefore, they are widely used as seals for jet engines.

Since the mid 1960, the production of petroleum based synthetic rubber has far outstripped the production of natural rubber.

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