

## Latex

Processing of natural rubber latex into high quality latex concentrate of 60% dry rubber content is done through centrifugation. Centrifuging involves the separation of preserved field latex into two fractions, one containing the concentrated latex of more than 60% dry rubber and the other containing 4-6% dry rubber. Centrifuged latex is today available commercially in two different varieties with high ammonia (min.0.6% of ammonia) and low ammonia (max. 0.3% of ammonia). The former is preserved solely with ammonia and later contains one or more preservatives besides ammonia. LA latex has several advantages which include better quality, lower cost of production by way of savings in preservatives, acid and low cost of effluent treatment.

Grades and applications

- High Ammonia (HA) -Foam products, dipped goods, adhesives, elastic thread, household and industrial gloves, balloons, rubber bands and finger caps.
  - Low Ammonia (LATZ) - Preferred for all applications when de ammonia is necessary for product manufacture.
- Requirement for centrifuged natural rubber latex is given in the table.

Characteristic	Requirement	
Type-HA	Type-LA	
Dry rubber content, percent by mass, Min	60.0	60.0
Non-rubber solids percent by mass, Max	2.0	2.0
Coagulum content, percent by mass, Max	0.05	0.05
Sludge content, percent by mass, Max	0.10	0.10
Alkalinity as ammonia, percent by mass of latex	0.6 Min	0.3 Max
KOH number, Max	1.0	1.0
Mechanical stability, Min	475	475
Volatile fatty acid number, Max	0.15	0.15
Copper content, ppm of total solids, Max	8	8
Manganese content, ppm of total solids, Max	8	8

HA – High Ammonia, LA – Low Ammonia

- Double Centrifuged - High technology dipped products such as condoms, examination gloves, surgical gloves, catheters etc. These products require a more pure form of concentrated latex. Usually this is achieved by a second stage of centrifuging. Ordinary centrifuged latex is diluted to about 30% drc and then centrifuged to 60% drc. Specifications for double centrifuged latex are prescribed in IS 11001:1984, which is given below.

All the latex processing companies in India take care to ensure supply of high quality contamination free product.

It is packed in good quality barrels of 200 + or – 5 kg and or in high quality flexy bags, as per demand.

**Creamed Latex** - The processing of latex into creamed concentrates involves the mixing of a creaming agent such as ammonium alginate or cooked tamarind seed powder with properly preserved field latex and allowing the latex to separate into two layers, an upper layer of concentrated latex and lower layer of serum containing very little rubber. The lower layer is removed, leaving the latex concentrate of 50%-55% drc which is tested, packed and marketed