### HOW TO USE GUM KARAYA?

Gum Karaya for personal use should be carefully chosen from safe source. Only clean and safe material should be used. Any visible impurities may be removed before use. For quick use small lumps may be grounded (powdered). One gram of Gum Karaya is sufficient to swell and fully absorb 100 ml of water, if left overnight. The gel may be taken in the morning with curd or rose flavour or plain as such





### **ABOUT US**

4ACES (run by IIT alumni), has set up State of Art unit to Produce finest quality Processed Gum Karaya free from impurities. The Processing Unit is located in NCR near Delhi. Our clientele includes companies from China, Japan, Indonesia, Vietnam, Nepal and Bangladesh.

HEAD OFFICE 52 SEA PALACE PREMISES, JUHU TARA ROAD, JUHU, MUMBAI MAHARASHTRA 400049, INDIA PROCESSING UNIT
UPSIDC PHASE I,
PLOT F 364,
MANSURI,GULAVATI
ROAD,TALUKA
DHAULANA, HAPUR,U.P
201015, INDIA

CONTACT US TO SETUP VISIT TO OUR PROCESSING UNIT.

## **OUR PRODUCTS**

Product Code	Size	Colour	Remarks
101	12 - 25 mm	Super White Spotless	Highest Quality
201	9 -11 mm	Super White Spotless	White very small defects
102	12 - 25 mm	White very small defects	Bada Talhu Size
202	9 -11 mm	White very small defects	Small Talhu Size
301	7 - 9 mm	Super White	Button Size
401	5 - 7 mm	Super White	2.5 Size
501	3 - 5 mm	Super White	1.5 Size
601	1 -3 mm	White very small defects	Bajra size
701	<1 mm	Powder on Order	Atta Powder Size

Besides above grades several lower grades are also generated. Lower quality materials are suitable for Animal Feed.









We also process & manufacture other gums like Gum Arabic, Loban, Hashab & Sokoto.

VISIT US ON WWW.4ACES.CO FOR MORE DETAILS

# GUM KARAYA INDIAN TRAGACANTH







Gum Karaya is also known as Indian Tragacanth. It is a dried exudate of Plant Sterculia Urens, a tree native to India. Dried exudate of Gum Karaya from tree are large lumps having several trapped impurities like soil, bark and dust. Raw Gum Karaya requires cleaning, breaking lumps into smaller pieces, size wise separation and grading. Several grades are made depending on end use. Highest grade processed Gum Karaya may be several times costlier than the low grade.

### **PROPERTIES**

Gum Karaya is a heavily acetylated polysaccharide composed of chains of  $\alpha$ -d-galacturonic acid and  $\alpha$ -l-rhamnose. Gum karaya swells in water to yield highly viscous solutions, however, solutions show a loss in viscosity on heating. Karaya retains water 100 times its own weight. Gum Karaya 1 gm kept in100 ml water overnight completely absorbs water making a highly viscous solution. It has smell of vinegar (acetic acid). On prolonged storage under hot and humid conditions, Gum Karaya deteriorates with loss of viscosity.

Gum karaya is recognized as safe by the FDA and has a number of applications in the food & other industry.

Karaya gum is classified as E416 by the EFSA (European Food Safety Authority) additive referential.

#### **USES**

- Bulk Laxative: Gum karaya is an effective bulk laxative as gum particles absorb water and swell 60 to 100 times their original volume. The mechanism of action is an increase in the volume of the gut contents. Gum karaya should be taken with sufficient fluids. Gum Karaya absorbs liquids in the intestines. This creates bulk and more liquid like stool which passes easily thus providing relief from constipation. Being natural and proven safe product it is far superior and cheaper compared to synthetic drugs.
- Demulcent: The demulcent (soothing) properties of the Gum Karaya make it useful as an ingredient in lozenges to relieve sore throat. 1% Solution of Gum Karaya (kept overnight) taken with curd or flavour relieves from acidity and gastritis.
- Water Retention Agent: Gum Karaya taken during fasting early morning hours is found to be very useful as water is retained in the body for full day taking away discomforts associated with fasting. During hot dry summer one cup of Gum Karaya 1% solution can prevent heat stroke by retaining water for longer period
- Emulsifier: Gum Karaya is a good emulsion stabilizer for Salad Dressings, because it increases the viscosity of the aqueous phase of the oil-water emulsion.

- Spread-ability: Gum Karaya is used to improve the spread-ability characteristics of cheese spreads when used in concentrations up to 0.8%.
- Diarrhoea Control: Gum Karaya having ability to absorb large volumes of water provides quick relief from Diarrhoea by absorbing excess water.
- Aphrodisiac: Ancient literature in Ayurveda and Unani medicine indicates use of Gum Karaya to increase sexual desire.
- Industrial Uses: In the Paper Industry, gum karaya is used in the manufacture of long fibre, lightweight papers. It is used in Textile Printing operations as a thickening agent for the dye in direct colour printing on cotton fabrics. After printing the dye is absorbed by the fibre and Gum Karaya can be easily washed away by excess cold water.
- Animal Feed: Gum Karaya provides cool and soothing effect to animals. Gum Karaya is known to improve milk yields of bovine animals. Animal Feed mixed in Gum Karaya Gel (0.2-0.5%)helps in digestion and increase intake of feed thus increasing milk yields. Gum Karaya is very effective (during hot conditions) to increase yields.
- Dental Adhesive: As a denture adhesive, the powdered Gum Karaya is dusted on the dental plate and swells when it touches the moist surfaces of the mouth. This results in amore comfortable and tighter fit of the plate. The rapid swelling of the Karaya particles, their relative insolubility, and their resistance to bacterial and enzymatic breakdown make the gum suitable for this use.