

PRODUCT

GUAR GUM POWDER



JJK
INTERNATIONAL

JJK International is a major global exporter of agricultural products, including fresh fruits, vegetables, spices, powders, grains, pulses, and dehydrated fruits and vegetables. The company emphasizes organic farming practices and environmental sustainability. In addition to food products, JJK International also produces animal feed, catering to both human and animal nutrition needs. With a commitment to quality, innovation, and customer satisfaction, JJK International has established itself as a trusted leader in the agriculture and grocery industries, serving a diverse global clientele.

INFORMATION ABOUT COMPANY



JJK International's recognition as a leading supplier and exporter of guar gum powder in domestic and international markets is impressive.

Derived from guar beans, this versatile ingredient finds applications in various industries such as food products, pharmaceuticals, cosmetics, and more. As a key player in this market, JJK International likely owes its success to strong customer relationships, stringent product quality standards, and reliability in delivery and service.

office in Pajod, Junagadh, Gujarat, India, This location in Gujarat, renowned for its agricultural and industrial significance, likely provides logistical advantages and access to premium raw materials.

JJK International's commitment to excellence is evident in its dedication to delivering superior products and services, catering to the diverse needs of its global clientele.

INFORMATION OF GUAR



Guar or clusterbean [*Cyamopsis tetragonoloba* (L.) Taub.], internationally known as guar, is an extremely drought hardy, deep rooted, summer annual legume of great economic and adaptive significance.

Virtues of guar effectively match with low and erratic rainfall pattern and high ambient temperature habitats of arid regions. The crop may thrive very well in rainfall range of 250 mm - 450 mm with 3-4 spells, temperature range of 25 C - 40 C, Relative Humidity (RH) values of 50% - 65%, longer and warmer days with 8-9 hours sun shine, particularly at maturity. Guar is suitable for light to medium textured soils, with no water logging. The crop requires less input and restricted after care, matching with the arid farmers' livelihood conditions. Guar is grown for grain, vegetable, fodder, cattle feed and green manure purposes, mainly in rain fed habitats of Rajasthan, Haryana, Gujarat and to some extent in Punjab and Madhya Pradesh also. This crop has recently been introduced in non-traditional regions of Anantapur, Kadappa, Karnool and Chittoor (dry region of Andhra Pradesh). During summer season of 2012, guar had been successfully cultivated with 4-5 irrigations in parts of Chattisgarh and Vidarbha and in non-traditional summer seasons of Rajasthan and elsewhere. The cultivation in non-traditional regions and seasons has increased possibility of two crops in rainy and summer

GUAR

GUAR PRODUCTS

GUAR GUM

Guar seed consists of three parts namely: (a) Hull - which is the outer layer / seed coat and constitutes around 15 - 17% by volume; (b) Germ Cell / embryo the inner soft mass constituting around 35 - 42 % of the volume and (c) Endosperm - constituting around 43 - 47 % of the seed by volume. Endosperm is the source of guar split and guar gum powder



Mature
Guar
Pods

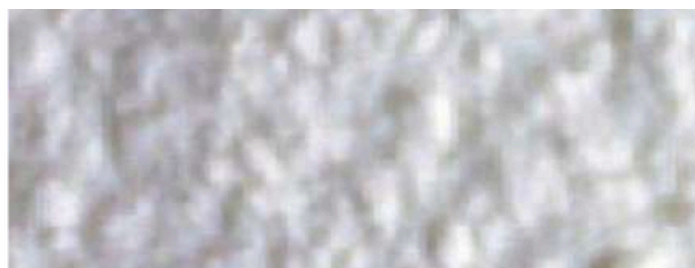
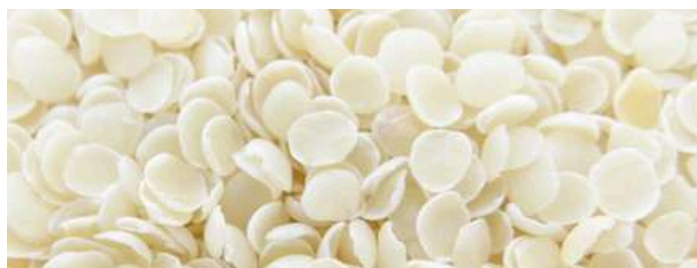


Guar
Endosperm



Guar
Seeds

Guar gum is a hydrocolloid polymer- cold water soluble polysaccharide. Its ability to hydrate without heating makes it very useful for many industrial applications. Further, its ability to form highly viscous colloidal dispersion at lower concentrations without heating makes it very useful for industrial uses. Solution with different gum concentrations can be used as emulsifiers and stabilizers because they prevent oil droplets from coalescing. Guar gum is also used as suspension stabilizer and is an economical thickener and stabilizer. Being non-ionic, it is not affected by ionic strength or pH but shows degradation at low pH and high temperatures (3 at 50 C, respectively). Guar gum retards ice crystal growth, non-specifically by slowing mass transfer across solid/liquid interface. The various derivatives or industrial grades of guar gum are manufactured by reaction of three hydroxyl groups with chemicals. The endosperm of guar seed is first converted into guar splits and then chemically processed and pulverized into guar powder.



GUAR GUM POWDER

QUALITY USES & TYPES

GUAR GUM QUALITY

Guar gum quality can be assessed in terms of certain traits like, physical characteristics, powder grade as a thickening agent and guar gum powder standards as below:

- Guar gum is a white to yellowish white powder and is nearly odorless. Fine finished guar gum powder is available in different viscosities and granulometries depending on the desired level of viscosity and applications. It is a naturally occurring high molecular weight hydrocolloidal polysaccharide composed of galactan and mannan units combined through glycosidic linkages, which may be chemically described as galactomannans. It is a cold water soluble polysaccharide consisting of mannose and galactose units.
- When dissolved in cold and hot water, guar gum forms a film of high viscosity which is a function of temperature, time and concentration.
- Solutions with different gum concentrations can be used as emulsifiers and stabilizers because it prevents oil droplets from coalescing; it is also used as suspension stabilizer.

Commercial Nomenclature of Guar Gum Powder	
HS CODE	130 232 30
CAS NUMBER	9000 30-0
EEC NUMBER	E - 412
BT NUMBER	1302 3290
EINECS NUMBER	232-536-8
IMCO CODE	HARMLESS

CHARACTERISTICS OF GOODS QUALITY GUAR GUM		
No.	Particular	Value
1.	Moisture content	14.0 %
2.	Acid Insoluble residue	4.0 %
3.	Galactomannan	75 %
4.	Protein content	7.0 %
5.	Arsenic content	3ppm
6.	Lead	10.0ppm
7.	Zinc	25ppm
8.	Copper and zinc	50ppm

GUAR GUM POWDER TYPES

Food grade guar gum powder: Used in industries like food, cosmetics, pharma, personal care etc.

Specification	100 mesh	200 mesh
Viscosity. By Brooke field Viscometer at 25°C , 20 rpm Spindle No-4 Solution – 1%	3000 / 3500 Cps Min.	3000 / 3500 Cps Min.
	4500 / 5000 Cps Max.	6000 / 7000 Cps Max.
Moisture	12 % Max.	12 % Max.
Passing	98 – 99 % Min.	90 – 99 % Min.
Proteins (N x 6.25)	5.0 % Max.	5.0 % Max.
Fat	0.3 % Max.	0.3 % Max.
A.I.R.	3.0 % Max.	3.0 % Max.
Ash	1.0 % Max.	1.0 % Max.
pH	5.5 – 7.0	5.5 – 7.0
Carbohydrates (by difference)	80 % Min.	80 % Min.
Arsenic	3 ppm Max.	3 ppm Max.
Lead	2 ppm Max.	2 ppm Max.
Heavy Metals	20 ppm Max.	20 ppm Max.



MICROBIOLOGICAL TEST

Specification	100 mesh	200 mesh
Total Plate Count / Gms.	5000 Max.	5000 Max.
Yeast and Mold / Gms.	200 Max.	200 Max.
Salmonella / 25 Gms.	Absent	Absent
E. Colli / 10 Gms	Absent	Absent
Colliform	Absent	Absent

industry grade guar gum powder: Used in textile printing, paper&craft ,enhence, oil&drilling etc.

Specification	100 mesh	200 mesh	300 mesh
Viscosity. By Brooke field Viscometer at 25°C , 20 rpm Spindle No-4 Solution – 1%	2500 / 3500 Cps Min.	2500 / 3500 Cps Min.	2500 / 3500 Cps Min.
	4500 / 5000 Cps Max.	8000 / 9000 Cps Max.	4500 / 5000 Cps Max.
Moisture	12 % Max.	12 % Max.	12 % Max.
Passing	98 – 99 % Min.	90 – 99 % Min.	98 – 99 % Min.
Proteins (N x 6.25)	5.0 % Max.	5.0 % Max.	5.0 % Max.
Fat	0.3 % Max.	0.3 % Max.	0.3 % Max.
A.I.R.	3.0 % Max.	3.0 % Max.	3.0 % Max.
Ash	1.0 % Max.	1.0 % Max.	1.0 % Max.
pH	5.5 – 7.0	5.5 – 7.0	5.5 – 7.0
Carbohydrates (by difference)	80 % Min.	80 % Min.	80 % Min.
Arsenic	3 ppm Max.	3 ppm Max.	3 ppm Max.
Lead	2 ppm Max.	2 ppm Max.	2 ppm Max.
Heavy Metals	20 ppm Max.	20 ppm Max.	20 ppm Max.

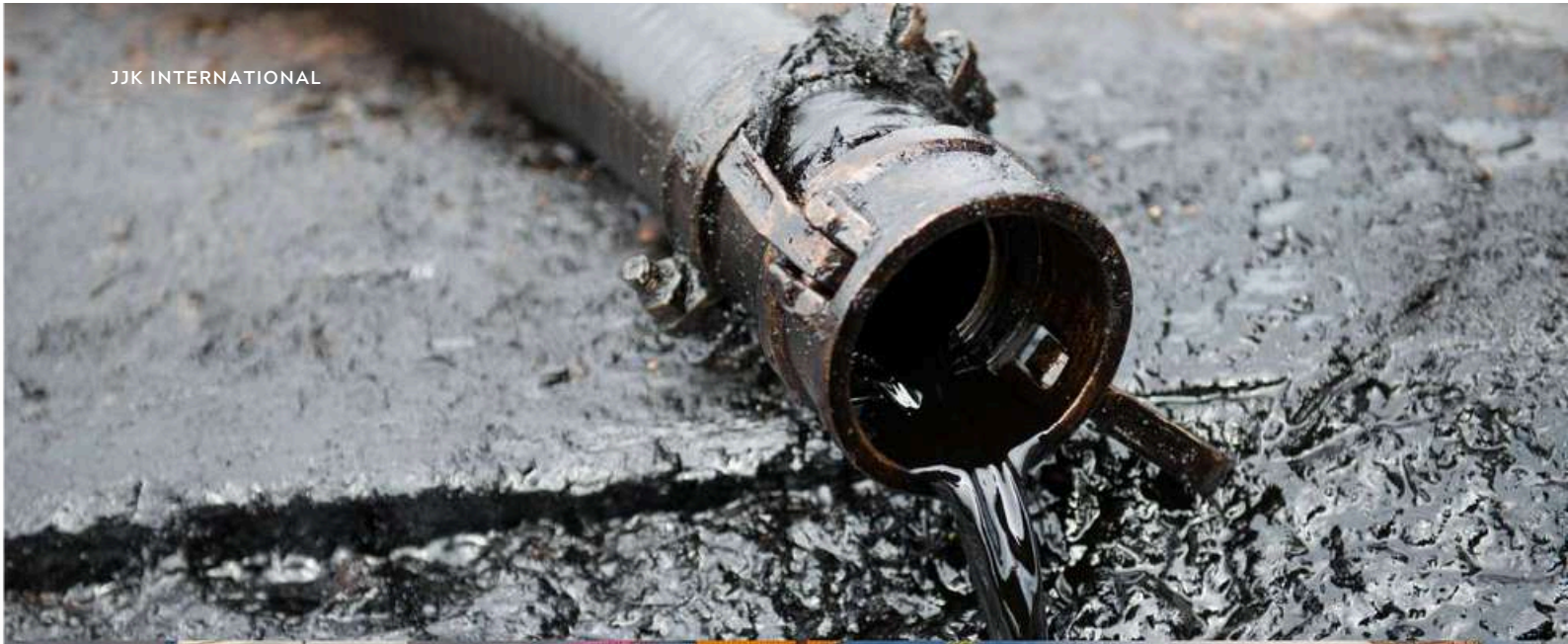


FAST HYDRATION GUAR GUM POWDER

Fast hydration guar gum powder: Fast hydration guar gum powder (FHG), also known as quick hydration guar gum, is an industrial-grade product primarily used in the oil and gas industry for hydraulic fracturing and drilling operations. This type of guar gum rapidly hydrates and attains high viscosity in water within minutes, making it highly effective in various applications.

Specificaation Physicals and Chemicals	
Color	Off White / Ceramist.
mesh	200 Mesh retain 01%.
Texture	Fine powder soluble in water.
Ash	01.00% Max.
Protein	05.00% Max.
Moisture	10.00% Max.
Gum (By Diff)	82.00% Min
pH	5 to 7

Specification	Grade-1	Grade-2	Grade-3
3 minutes	31 cps min	35 cps min	38 cps min
5 minutes	33 cps min	37 cps min	42 cps min
30 minutes	35 cps min	38 cps min	46 cps min
1 hours	36 cps min	40 cps min	47 cps min



GUAR GUM POWDER FOR TEXTILE PRINTING

Product	Colour	constitution	Characteristics	pH	%	Viscosity
TP40	White	Depolymerised guar gum	Low Viscosity, Excellent Colour Value, Enhanced Penetration	6 -7.5	2.5	11000-17000
TP50	White	Depolymerised guar gum	Medium Viscosity, Good Washing Properties, Enhanced Penetration	6 -7.5	2	15000-23000
TP60	White	Depolymerised guar gum	High Viscosity, Good Leveled Prints	6 -7.5	1.6	27000-39000
TPPRIME EXPORT QUALITY	White	Depolymerised guar gum	Higher Printing Coverage, Quick Viscosity Development, Excellent Colour Value, Enhanced sharp & Leveled Prints,	6 -7.5	3	11000-14000
TP AGBV LV	Yellow	Depolymerised guar gum	Low Viscosity, Excellent Washing Properties, Sharp & Leveled Prints	9.5-11	4.5	19000-25000
TP AGBV MV	Yellow	Depolymerised guar gum	Stable Viscosity, Higher Printing Coverage	9.5-11	8	31000-39000



GUAR GUM POWDER USES

Industrial Uses Guar Gum Powder			
No.	Industry	Uses	Expected Functions
1.	Food & Beverags	Bread, cake, pastry, icing Ice-creams, soft serves, frozen cakes, Yoghurts, molasses, desserts, Cottage cheese, cream, cheese, Pudding, sauces, desserts, beverages Pet foods, conned meal baby foods Salad ,cream, pickles, Coca drinks, fruit nectars, sugarless ,beverages	ugh improvement, moisture retention, prolonged self life Water retention, ice crystal inhibitor and stabilizer Inhibits when separates keeps texture after sterilization Increase the yield of curd solids, improves tenderness thickening and suspending agent
2.	Textile printing	Cotton, rayon silk, wool sizing, carpet printing	Reduces wrap breakage & dusting film, formatting thickening for dyeing
3.	Paper	Wrapping paper, craft, Duplex board, photographic paper, filter	Replaces hemi-cellulose, increases strength, fold, pick, pulp hydration
4.	Oil & Drilling	Drilling fluids hydraulic fracturing	Control of water loss, viscosity, suspension, turbulence, mobility, friction reduction
5.	Explosives	Stick explosives, blasting slurries	Water proofing, gelling agent
6.	Pharmaceuticals	Medicines Diabetic treatment Laxative slimming aids Gastric hyper acidity Vitamin formation	Cholesterol treatment appetite depressant Reduction of urinary glucose loss Appetite depressant Stable water suspension
7.	Cosmetic	Hair shampoos Hair coordinators Lotions Ointments	Detergent, compatible thickener Protective colloid film forming agent Lubricating suspending agent Thickening agent Granulating agent

GUAR GUM POWDER PACKAGING & EXPORT

PACKAGING CAPABILITIES

JJK INTERNATIONAL provides different packaging options to its customers.

:: PAPER BAG - 20 Kg/25Kg/50 Lbs Net in multi-wall paper bags of different categories.

OPEN MOUTH TYPE BAGS

4 Ply or 5 ply.
Top Ply - Brown or White.
Polyliner inside.

VALVE TYPE BAGS

4 Ply
Top Ply - Brown or white
Second Ply Polycoated

:: BULK BAGS - 450 Kg/750 Kg/900 Kg Net/1000 Kg. with palletisation HDPE Polycoated baffle type bulk bags.

Weight of on bag	Packing Materials	1×20'FCL Palletization & screen raping	1×20'FCL Without Palletization
25 kg. Net	paper or pp bag	18 M.T.	20 M.T.
50 kg. Net	pp or hdpe bag	18 M.T.	21 M.T.
1000 kg. Net	jumbo bag	20 M.T.	20 M.T.





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