



Integrated Chemical Specialties

- a division of Integrated Traffic Systems USA



HYFRACTM

GUAR GUM

bringing **solutions**  to **complex** chemistry



HYFRAC™

HyFrac™ IN2350

HyFrac™ IN2500

HyFrac™ IN2600

HyFrac™ IN2700

HyFrac™ FGH3350

HyFrac™ FGH3400

HyFrac™ FG2350

HyFrac™ FG2500

HyFrac™ FG2600



HYFRACTM
GUAR GUM



Your Preferred Supplier Of High-Quality Chemicals

INTRODUCTION

Guar Gum is made by de-husking, milling or grinding, screening and sometimes further processing the bean of the Guar Gum plant, the *Cyamopsis tetragonolobus* of the Leguminosae family.

Guar Gum is most commonly used as a powder or in granular form and when mixed with cold water it forms a viscous colloidal solution. It is thus considered to be a good natural cold water soluble polymer and lends itself for use in an array of industries for applications such as thickener, stabilizer, texture/mouth feel modifier, rheology and viscosity control agent, and to eliminate syneresis or weeping.

The ground husk of the Guar Gum bean is used in the animal feed industry as it is rich in natural fiber. It is used as an environmentally sound rheology modifier additive to hydraulic fracking/drilling mud mixtures.

Integrated Chemical Specialties, as division of Integrated Traffic Systems USA provides Guar Gum in powder and granular forms, and ground guar husks for use in a variety of consumer products as outlined in the table below:

INDUSTRY	APPLICATION
OIL, GAS AND PETROCHEMICALS	Drilling Fluids, Well Bore Stimulation, Hydraulic Fracturing Fluids
FOOD	Used in an array of food and beverage products: breads, dairy (cream cheese) and soups as a stabilizer and thickener, provides mouthfeel to dairy products and breads, increases yield and quality of bread dough, binds water and controls ice formation in ice cream. Also used in condiments, cake mixes, noodles and in beverages as a thickener.
DRUG (Pharmaceuticals)	Binder or disintegrator in tablets, main ingredient in some bulk forming laxatives, nanoparticles and innovative medicine delivery systems
PERSONAL CARE (Cosmetics)	Thickener in toothpaste, conditioner in shampoos
TEXTILE PROCESSING	Used in sizing, finishing and printing of textiles for aiding the process and improving texture and quality of finished product
ANIMAL FEED	Guar Gum powder is used as Pet Food additive as well as milking animal's food additive for the protein or used in milled husks form for additional fiber in animal feed.

CHEMICAL NAME

Guar Gum Powder

CAS NO.

9000-30-0



INDUSTRIAL GRADE

HyFrac™ IN2350

Rheology Modifier for Oil & Gas Well Drilling, Paper Making and Synthetic Resin Formation

HyFrac™ IN2500

Rheology Modifier for Oil & Gas Well Drilling, Paper Making and Synthetic Resin Formation

HyFrac™ IN2600

Oil & Gas Well Drilling, Coal Mining, Synthetic Resin Formation

HyFrac™ IN2700

Explosives, Mining, Oil & Gas Well Drilling

HyFrac™ FGH3350

Oil & Gas Drilling

HyFrac™ FGH3400

Oil & Gas Drilling



FOOD GRADE

HyFrac™ FG2350

Used in various food applications such as bakery products and confectionary

HyFrac™ FG2500

Used in preparation of frozen products such as ice-cream, puddings, cakes and meats

HyFrac™ FG2600

Used in toothpaste, shaving cream and cosmetic formulations

HYFRAC™ IN2350

GUAR GUM POWDER



HyFrac™ IN2350 is a fine white to pale yellow powder having low viscosity, used in Industrial Grade. It attains a cold-water viscosity of 3500 cps after hydrating for 24 Hrs.

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 13
pH	-	5.5 – 7.0

Granulation

On 40 #	%	Nil
Through 200 #	%	Min 95

Viscosity

Cold Viscosity, 1% Sol. (Brookfield Viscometer), Spindle No.3 / 20 RPM at 25°C		
After 24 hrs.	cps	Min 3500

APPLICATION

- Oil & Gas Well Drilling
- Paper Formation
- Coal Mining
- Synthetic Resin Formation
- In preparation of Mosquito coils

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement



HyFrac™ IN2500

GUAR GUM POWDER



HyFrac™ IN2500 is a fine white to pale yellow powder having high viscosity, used in Industrial Grade. It attains a cold-water viscosity of 5000 CPS after hydrating for 2 Hrs.

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 13
pH	-	5.5 – 7.0

Granulation

On 40 #	%	Nil
Through 200 #	%	Min 95

Viscosity

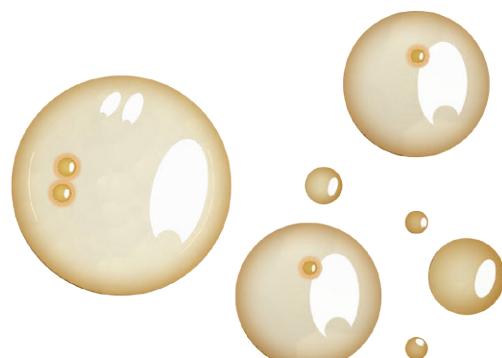
Cold Viscosity, 1% Sol. (Brookfield Viscometer), Spindle No.3 / 20 RPM at 25°C		
After 24 hrs.	cps	Min 5000

APPLICATION

- Oil & Gas Well Drilling
- Paper Formation
- Coal Mining
- Synthetic Resin Formation
- In preparation of Mosquito coils

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement



HYFRAC™ IN2600

GUAR GUM POWDER



HyFrac™ IN2600 is a fine white to pale yellow powder having high viscosity. It attains a cold-water viscosity of 6000 cps after hydrating for 2 Hrs.

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 10
Ash	%	Max 1.0
pH	-	5.5 – 7.0

Granulation

On 40 #	%	Nil
Through 200 #	%	Min 99

Viscosity

Cold Viscosity, 1% Sol. (Brookfield Viscometer), Spindle No.3 / 20 RPM at 25°C		
After 24 hrs.	cps	Min 6000

APPLICATION

- Oil & Gas Well Drilling
- Mining
- Coal Mining
- Synthetic Resin Formation

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement



HyFrac™ IN2700

GUAR GUM POWDER



HyFrac™ IN2700 is a fine white to pale yellow powder having high viscosity, used in oil drilling due to fast hydration. It attains a cold-water viscosity of 7000 cps after hydrating for 2 Hrs.

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 8
Ash	%	Max 1.0
pH	-	5.5 – 7.0

Granulation

On 40 #	%	Nil
Through 200 #	%	Min 97

Viscosity

Cold Viscosity, 1% Sol. (Brookfield Viscometer), Spindle No.3 / 20 RPM at 25°C		
After 24 hrs.	cps	Min 7000

APPLICATION

- Explosives
- Mining
- Oil & Gas Well Drilling

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement



HYFRAC™ FHG3350

GUAR GUM POWDER



HyFrac™ FHG3350 is a fine white to pale yellow powder having high viscosity, used in oil drilling due to fast hydration

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 5
Ash	%	Max 1
pH	-	7.0 – 8.0

Granulation

On 40 mesh	-	Nil
Through 200 mesh	%	Traces

FANN Viscosity

Viscosity in 2% KCl sol. At fan 35 viscometer after 3 minutes on 300 RPM at 25 °C (stirring at 1500 rpm for two & half minutes in warring blender)		
3 Minutes	cps	Min 35
5 Minutes	cps	Min 37
30 Minutes	cps	Min 39.5
60 Minutes	cps	Min 40

APPLICATION

- Oil & Gas Drilling

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement



HYFRAC™ IN3400

GUAR GUM POWDER



HyFrac™ FHG3400 is a fine white to pale yellow powder having high viscosity, used in oil drilling due to fast hydration

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 5
Ash	%	Max 1
pH	-	7.0 – 8.0

Granulation

On 40 mesh	-	Nil
Through 200 mesh	%	Traces

FANN Viscosity

Viscosity in 2% KCl sol. At fan 35 viscometer after 3 minutes on 300 RPM at 25 °C (stirring at 1500 rpm for two & half minutes in warring blender)		
3 Minutes	cps	Min 40
5 Minutes	cps	Min 42
30 Minutes	cps	Min 44.5
60 Minutes	cps	Min 45

APPLICATION

- Oil & Gas Drilling

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement



HYFRAC™ FG2350

GUAR GUM POWDER



HyFrac™ FG2350 is a fine white to pale yellow powder having medium viscosity, used in Food Grade. It attains a cold-water viscosity of 3500 CPS after hydrating for 2Hrs.

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 10
Protein	%	Max 6
Ash	%	Max 1
Air	%	Max 6
Fat	%	Max 1
Gum Content	%	Min 80
pH	-	5.5 – 6.5

Granulation

On 40 mesh	-	Nil
On 100 mesh	-	Traces
Through 200 mesh	%	Min 97

Viscosity

Cold Viscosity, 1% Sol. (Brookfield Viscometer), Spindle No.3 / 20 RPM at 25°C		
After 2 hrs.	cps	Min 3500
After 24 hrs.	cps	Stable or More

TPC/Gm	ppm	Max 2000
Yeast/Gm	ppm	Max 100
Molds/Gm	ppm	Max 100
Coliform/Gm	-	Nil/Absent
E.Coli /10 Gm	-	Negative
Salmonella/20 Gm	-	Negative

APPLICATION

- Used in preparation of Bakery Products & Confectionary Products

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement

HyFrac™ FG2500

GUAR GUM POWDER



HyFrac™ FG2500 is a finewhite to pale yellow powder having medium viscosity, used in Food Industries. It attains a cold-water viscosity of 5000 CPS after hydrating for 2Hrs.

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 10
Protein	%	Max 5
Ash	%	Max 1
Air	%	Max 5
Fat	%	Max 1
Gum Content	%	Min 85
pH	-	5.5 – 6.5

Granulation

On 40 mesh	-	Nil
On 100 mesh	-	Traces
Through 200 mesh	%	Min 97

Viscosity

Cold Viscosity, 1% Sol. (Brookfield Viscometer), Spindle No.4 / 20 RPM at 25°C		
After 2 hrs.	cps	Min 5000
After 24 hrs.	cps	Stable or More

TPC/Gm	ppm	Max 2000
Yeast/Gm	ppm	Max 100
Molds/Gm	ppm	Max 100
Coliform/Gm	-	Nil/Absent
E.Coli /10 Gm	-	Negative
Salmonella/20 Gm	-	Negative

APPLICATION

- Used in preparation of frozen Foods, Ice Cream, Cakes, Puddings and Meat Products

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement

HYFRAC™ FG2600

GUAR GUM POWDER



HyFrac™ FG2600 is a fine white to pale yellow powder having medium viscosity, used in Food Industries. It attains a cold-water viscosity of 6000 CPS after hydrating for 2Hrs.

PROPERTIES

Chemical Analysis

Test Parameter	Unit	Specification
Moisture	%	Max 10
Protein	%	Max 5
Ash	%	Max 1
Air	%	Max 5
Fat	%	Max 1
Gum Content	%	Min 80
pH	-	5.5 – 6.5

Granulation

On 40 mesh	-	Nil
On 100 mesh	-	Traces
Through 200 mesh	%	Min 97

Viscosity

Cold Viscosity, 1% Sol. (Brookfield Viscometer), Spindle No. 4 / 20 RPM at 25°C		
After 2 hrs.	cps	Min 6000
After 24 hrs.	cps	Stable or More

TPC/Gm	ppm	Max 2000
Yeast & Molds /Gm	ppm	Max 200
Coliform/Gm	-	Nil/Absent
E.Coli /10 Gm	-	Negative
Salmonella/20 Gm	-	Negative

APPLICATION

- Used in preparation of Toothpaste, Shaving Cream, and Cosmetics

PACKING

- 25 Kg / 50 LBS, Multiwall Paper Bag with inside Polyliner / Laminated (Paper Bag Size 32")
- or 1000 Kg / 500 Kg Jumbo bags
- or as per Buyer's Requirement

A large field of golden hay bales under a bright blue sky with scattered white clouds. The hay bales are in the foreground, and the field extends to the horizon. The sky is filled with fluffy white clouds.

HYFRAC™

Your Preferred Supplier Of High-Quality Chemicals



ABOUT



Integrated Chemical Specialties

- a division of Integrated Traffic Systems USA

Integrated Chemical Specialties comprises a competent team of professionals who strive hard to ensure the highest level of quality and service in our business. It is our goal to deliver every product meeting the quality and consistency that our customers expect, irrespective of its origin. Our specialty chemicals are used in a variety of applications and industries. We offer customized solutions through formulated products and excellent technical support.

We consider ourselves a versatile and customer centric company that works closely with its customers to provide them the products they need. Our dedication and motivation have made us who we are today, as that also shapes our future.

At Integrated Chemical Specialties, we believe building solid partnerships with our customer is critical to our success. We as a company endeavor to follow the right path, which will allow us to continue meeting new challenges and exceeding expectations.

YOUR SAFETY OUR CONCERN

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