



Lucid Colloids America Inc.

1530 Sun City Blvd., Suite 120-215, Georgetown, TX 78633, USA
Tel: +1 (713) 320-5845 email: rbono@lucidcolloids.com

www.lucidcolloids.com

Product Information

Edicol® Food & Pet Food Grade Guar Gums



Lucid Colloids Limited based in India is a premier manufacturer of Edicol® range of Guar Gums since 1958 for various applications such as food, pet-food, pharmaceuticals, personal and home care, oil & gas, paper, explosives, textiles and a host of other applications.



Lucid has a rich 64 year legacy in the business and a collective experience of over 500 man-years in the industry. Lucid has 3 Plants located at Jodhpur, Meglasiya and Jhagadia in India. Agri Field Research for Guar and Arid Zones crops is carried out on a 40 acre Guar Agri Farm and Research Station. The Head Office is in Mumbai, India. Lucid has a subsidiary company incorporated in the USA as **Lucid Colloids America Inc.** and another in the Netherlands as **Lucid Colloids Europe B.V.**

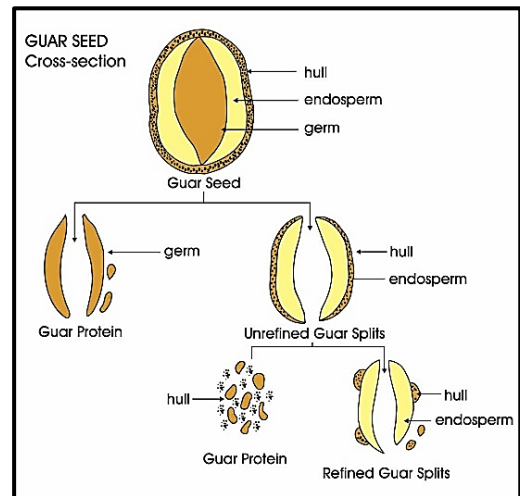


Lucid is ISO 9001, ISO 14001, ISO 45001, FSSC 22000 (GFSI equivalent), BRC-9, cGMP, EFCI GMP, SA 8000, SEDEX (SMETA 4-Pillar), Vegan, Non-GMO, Kosher, Halal and Organic certified. Lucid has adopted best global practices of governance, safety environment and social standards.

Lucid currently has 350 global employees and is a leading supplier of Guar Gum to the global food, feed, pharma and nutraceutical sectors. Lucid's Edicol® brand of Food & Pet-food Grade Guar Gums are marketed



in over 30 countries. Lucid's strength lies in its capabilities to offer a **wide range of Edicol® Guar Gums as well as customised products.** Products range from Ultra Low viscosity of 1,200 cps for a 10% solution to Ultra High viscosity of 7,000 cps for a 1% solution, in a variety of particle sizes and hydration rates.



We cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product combination for their own purposes. Unless otherwise agreed in writing, we sell the product/s without warranty and buyers and users assume all responsibility and liability for loss or damage arising from the handling and use of our products whether used alone or in combination with other products. The information given and recommendations made are based on research carried out in our laboratories and/or actual field trials. However, since results obtained can vary as per operating conditions, environmental and climatic factors etc., users are requested to run their own tests to determine the suitability of our products to their particular needs. Advice given on the possible use of our products are not to be construed as recommendations to use them in the infringement of any patents.



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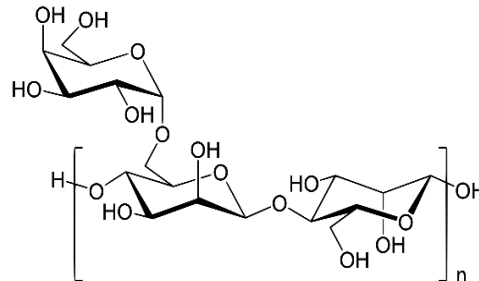
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FAO/WHO Codex Alimentarius - Food Status: A1, ADI: Not Specified. European Community - Food Status: E412. Food Chemical Codex - Food Status: Direct Food Additive. Guar gum that meets FCC specifications is affirmed as GRAS as a direct food additive under FDA regulation 184.1339. FEMA/GRAS No: 2537. CAS No: 9000-30-0

White - cream coloured powder, extracted from the endosperm of natural Guar beans, "*Cyamopsis Tetragonalobus*". Hot and cold water soluble Galactomannan Polysaccharide. Beta 1,4 linear mannose backbone chain with a single galactose side unit on approximately every alternate mannose unit in an alpha 1,6 linkage. High viscosities at low concentrations. Non-Newtonian, pseudo-plastic rheology. Viscosities increase exponentially with increasing concentrations in water. Estimated Mol Wt range = $0.1 \sim 10 \times 10^6$ Daltons



PRODUCT RANGE

Viscosity		Particle Size				
		Fine	Med. Coarse	Coarse	Very Coarse	
Viscosity Type	Typical Viscosity (#)	90% < 200 mesh (75μ)	60% < 200 mesh (75μ) and 20% > 100 mesh (150μ)	30% < 200 mesh (75μ) and 20% > 100 mesh (150μ)	70% > 60 mesh (250μ)	
		Finer <----- Particle Size -----> Coarser				
		Faster <----- Hydration Rate -----> Slower				
		Difficult <----- Dispersibility -----> Easier				
Lower <----- Viscosity -----> Higher	Ultra High	7000	110-70			
	Very High	6500	100-70, 90-70	100-60, 90-60	100-50, 100-30, 90-50, 90-30	
	High-High	6000	80-70	80-60	80-55, 80-50, 80-30	
	Medium-High	5500	70-70	70-60	70-50, 70-30	
	Low-High	5000	60-70	60-60	60-50, 60-35, 60-30	60-10, 60-00
	High-Medium	4000	40-70	40-60	40-50, 40-30	
	Medium-Medium	3000	30-70	30-60	30-50, 30-40	30-10, 30-00
	Low-Medium	2000	20-70	20-60	20-20	
	High-Low	1000	ULV 1000			
	Medium-Low	450 - 750	ULV 750, ULV 500			
Low-Low	40 - 200	ULV 200, ULV 100, ULV 50				
Ultra Low	<1500 cps @ 4% - 10% concentration	DPG-1, 2, 3, 4				
		Edicol® Grade Nos				

(#) = Typical 1% Brookfield Viscosity, cps (mPas), 2 hrs, 25° C.

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