



GUAR RESOURCES, LLC

807 N 5<sup>th</sup> St. Brownfield TX 79316

Tel: 806.637.4662 Fax: 806.637.1643

## Product Specification Sheet Guar Gum Powder: M20V40-E

Brand Name: Guar Resources		CAS# 9000-30-0	
Product ID: M20V40-E			
M20V40-E is a fine, white to pale yellow powder having a high viscosity. It can be used in a wide variety of applications to build viscosity to assist in proppant transport, hydraulic fracturing, and high pressure pumping applications. Typical usage levels vary from 10 to 50 pounds per thousand gallons in hydraulic fracturing. M20V40-E is stable over a wide pH range, but the powder hydrates best within a neutral pH range (Between 6 - 8). This product hydrates in cold to warm water temperature and can be used in cold or heated applications.			
Typical Usage Level:	10-50 ppt		
Solubility	Water Soluble		
Suggested Uses:	Linear and crosslinked frac hydraulic fracturing fluids, friction reducer, oil recovery and oil/natural gas well drilling applications		
Standard packaging	2,000 Super Sack per pallet		
Shelf Life:	2 years		
Storage and Handling:	Cool and dry for maximum shelf life		
<b>Specifications</b>			
Physical & Chemical		Minimum	Maximum
Viscosity- 3 minute (Fann rheometer, 40ppt w/ 2% KCl)		38cP	42cP
Viscosity – 60 minute (Fann rheometer, 40ppt w/ 2%KCl)		43cP	47cP
Moisture		0%	12%
Gum Content		80%	100%
Ash Content		0%	1%
Acid Insoluble Residue		0%	3%
Ph (Viscosity Solution)		5.5 pH	7.0pH
Particle Size (USS# 200 Mesh Through)		90%	100%
Odor (Typical)		Nearly odorless	-
Powder Color (Visual)		Creamy White	-
Texture (Qualitative)		Free Flowing Powder	-

The information provided is based upon tests, and observations, made under laboratory conditions and is believed to be accurate. Test results may, however, vary depending upon testing conditions. In furnishing samples and product data specifications, Guar Resources, LLC makes no Warranty, either express or implied, including any warranty of merchantability or fitness for a particular purpose. It is expressly understood and agreed that it is the buyer's responsibility to determine suitability of the product for a particular purpose, product or process. To obtain a description of our testing methodologies, please contact Guar Resources, LLC at 806.637.4662