



# Texan Shale Chemicals

11806 Wilcrest Drive, Suite 202, Houston, TX 77031  
Phone: 281-741-0226 Email: Mani@texanstone.com



## CERTIFICATE OF ANALYSIS

Product: - Fast Hydrating Guar Gum Powder  
Grade:- FH-40-45  
Product code:- FHG-4A  
Manufacturing Date :- April, 2018  
Analysis Date :- 1st & 2nd April,2018

CONTAINER NO. MRKU 9033333

Complete Analysis: -

	DESCRIPTION	RESULTS			
	LOT No.	1804616	1804617	1804618	1804619
Analysis:	MOISTURE: -	3.60%	3.55%	3.48%	3.59%
	pH: -	7.29	7.29	7.32	7.32
		CPS	CPS	CPS	CPS
Fann Viscosity:	3 minutes:-	40.0	40.0	40.0	40.0
	5 minutes:-	41.5	41.5	41.5	41.5
	10 minutes:-	43.0	43.0	43.0	43.0
	30 minutes:-	44.0	44.0	44.0	44.0
	60 minutes:-	45.0	45.0	45.0	45.0
Mesh	On 100#	Nil	Nil	Nil	Nil
	Through 200#	99.27%	99.30%	99.38%	99.37%
	Through 300#	80.67%	80.45%	80.31%	81.21%
Diesel slurry:		197 cps	200 cps	190 cps	188 cps



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### CERTIFICATE OF ANALYSIS

Product: - Fast Hydrating Guar Gum Powder  
Grade:- FH-40-45  
Product code:- FHG-4A  
Manufacturing Date :- April, 2018  
Analysis Date :- 3rd April,2018

CONTAINER NO. MSKU 3893670

Complete Analysis: -

	DESCRIPTION	RESULTS			
	LOT No.	1804624	1804625	1804626	1804627
Analysis:	MOISTURE: -	3.45%	3.65%	3.39%	3.41%
	pH: -	6.23	6.19	6.16	6.18
		CPS	CPS	CPS	CPS
Fann Viscosity:	3 minutes:-	40.0	40.0	40.0	40.0
	5 minutes:-	41.5	41.5	41.5	41.5
	10 minutes:-	43.0	43.0	43.0	43.0
	30 minutes:-	44.0	44.0	44.0	44.0
	60 minutes:-	45.0	45.0	45.0	45.0
Mesh	On 100#	Nil	Nil	Nil	Nil
	Through 200#	99.45%	99.24%	99.35%	99.29%
	Through 300#	81.40%	80.20%	80.30%	80.64%
Diesel slurry:		197 cps	200 cps	190 cps	188 cps



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## CERTIFICATE OF ANALYSIS

Product: - Fast Hydrating Guar Gum Powder  
Grade:- FH-40-45  
Product code:- FHG-4A  
Manufacturing Date :- March, 2018  
Analysis Date :- 10th & 21th March,2018

CONTAINER NO. MSKU 5960381

Complete Analysis: -

	DESCRIPTION	RESULTS			
	LOT No.	1803596	1803597	1803598	1803599
Analysis:	MOISTURE: -	3.42%	3.55%	3.45%	3.50%
	pH: -	5.95	5.97	6.00	6.00
		CPS	CPS	CPS	CPS
Fann Viscosity:	3 minutes:-	40.0	40.0	40.0	40.0
	5 minutes:-	41.5	41.5	41.5	41.5
	10 minutes:-	43.0	43.0	43.0	43.0
	30 minutes:-	44.0	44.0	44.0	44.0
	60 minutes:-	45.0	45.0	45.0	45.0
Mesh	On 100#	Nil	Nil	Nil	Nil
	Through 200#	99.39%	99.30%	99.24%	99.37%
	Through 300#	80.92%	80.42%	80.62%	80.41%
Diesel slurry:		178 cps	198 cps	200 cps	200 cps



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## CERTIFICATE OF ANALYSIS

Product: - Fast Hydrating Guar Gum Powder  
Grade:- FH-40-45  
Product code:- FHG-4A  
Manufacturing Date :- March, 2018  
Analysis Date :- 17th March,2018

CONTAINER NO. MSKU 7680414

Complete Analysis: -

	DESCRIPTION	RESULTS			
	LOT No.	1803584	1803585	1803586	1803587
Analysis:	MOISTURE: -	3.53%	3.43%	3.52%	3.48%
	pH: -	6.02	5.94	5.95	6.02
		CPS	CPS	CPS	CPS
Fann Viscosity:	3 minutes:-	40.0	40.0	40.0	40.0
	5 minutes:-	41.5	41.5	41.5	41.5
	10 minutes:-	43.0	43.0	43.0	43.0
	30 minutes:-	44.0	44.0	44.0	44.0
	60 minutes:-	45.0	45.0	45.0	45.0
Mesh	On 100#	Nil	Nil	Nil	Nil
	Through 200#	99.25%	99.25%	99.28%	99.29%
	Through 300#	80.62%	80.66%	80.62%	80.53%
Diesel slurry:		192 cps	200 cps	200 cps	197 cps



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## CERTIFICATE OF ANALYSIS

Product: - Fast Hydrating Guar Gum Powder  
Grade:- FH-40-45

CONTAINER NO.: MSKU5489287

BATCH NO.	180246	180247
Manufacture date	March 2018	March 2018
Expiration date	February 2019	February 2019
MOISTURE%	3.80	3.75
pH	6.90	6.85
PHYSICAL ANALYSIS		
Appearance	Light Cream Coloured homogenous powder	
Granulometry On 100 mesh %	Nil	Nil
Through 170 mesh %	99.20	99.30
Through 200 mesh %	98.10	98.20
VISCOSITY		
TIME (IN MINUTES) 3	40.50	40.70
TIME (IN MINUTES) 60	46.00	46.20



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## CERTIFICATE OF ANALYSIS

Product: - Fast Hydrating Guar Gum Powder  
Grade:- FH-40-45

CONTAINER NO.: TCKU3350636

BATCH NO.	180248	180249
Manufacture date	March 2018	March 2018
Expiration date	February 2019	February 2019
MOISTURE%	3.85	3.70
pH	6.90	6.80
PHYSICAL ANALYSIS		
Appearance	Light Cream Coloured homogenous powder	
Granulometry On 100 mesh %	Nil	Nil
Through 170 mesh %	99.10	99.20
Through 200 mesh %	98.10	98.10
VISCOSITY		
TIME (IN MINUTES) 3	40.70	40.50
TIME (IN MINUTES) 60	46.00	46.40



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## CERTIFICATE OF ANALYSIS

Product: - Fast Hydrating Guar Gum Powder

Grade:- FH-40-45

CONTAINER NO.: TRLU8853563

BATCH NO.	180250	180251
Manufacture date	March 2018	March 2018
Expiration date	February 2019	February 2019
MOISTURE%	3.65	3.85
pH	6.80	6.90
PHYSICAL ANALYSIS		
Appearance	Light Cream Coloured homogenous powder	
Granulometry On 100 mesh %	Nil	Nil
Through 170 mesh %	99.20	99.10
Through 200 mesh %	98.20	98.10
VISCOSITY		
TIME (IN MINUTES) 3	40.50	40.70
TIME (IN MINUTES) 60	46.00	46.20