

May 2014

2508 Bridle Path
 Austin, Texas 78703
 Phone: 512/619-1491
 Fax: 888/437-3192
 email:edwardkmills@gmail.com
 Website: etsincusa.com

Oil & Gas Well Cementing

ETS Lite™ Engineered Cenosphere Specifications

SPECIFICATION	ETS Premium UltraLite™ <i>High Crush Resistance</i>	ETS Standard Lite™ <i>High Crush Resistance</i>	ETS Standard Lite™
GRADE	Ultra-Low Density; High Crush Resistance	Low Density; High Crush Resistance	Low Density
HYDRAULIC CRUSH RESISTANCE <i>(% breakage at 3000 psi for 15 mins, wt %)</i>	30% max	40% max	N/A
PHYSICAL PROPERTIES:	Min - Max	Min - Max	Min - Max
Appearance	Gray Powder	Gray Powder	Gray Powder
Specific Gravity	0.69 - 0.73	0.74 - 0.85	0.74 - 0.85
Sinkers (wt %)	1.0 (max)	5.0 (max)	5.0 (max)
Moisture (wt %)	0.5 (max)	0.5 (max)	0.5 (max)
CHEMICAL COMPOSITION:	Min - Max	Min - Max	Min - Max
SiO ₂ (wt %)	50 - 60	50 - 60	50 - 60
Al ₂ O ₃ (wt %)	30 - 40	30 - 40	30 - 40
Fe ₂ O ₃ (wt %)	2 - 6	2 - 6	2 - 6
CaO (wt %)	1 - 4	1 - 4	1 - 4
MgO (wt %)	1 - 2	1 - 2	1 - 2
TiO ₂ (wt %)	0.5 - 3	0.5 - 3	0.5 - 3
Na ₂ O, K ₂ O (wt %)	1 - 4	1 - 4	1 - 4
SIEVE ANALYSIS:	Min - Max	Min - Max	Min - Max
Amt retained on 50 Mesh screen (%)	0.0 - 15.0	0.0 - 15.0	0.0 - 15.0
Pass through 400 Mesh screen (%)	0.0 - 5.0	0.0 - 5.0	0.0 - 5.0
PACKAGING:	Jumbo Bags (500 kgs) with liner; palletized (CP9 or per buyer's request), fumigated or per buyer's request, strapped & shrink wrapped or per buyers request		

Notice to Purchaser: The information in this publication is based on tests that we believe are reliable. Your results may vary due to differences in test conditions. You must evaluate whether the product is suitable for your specific intended application. The information above is made with no express or implied warranties. ETS Inc.'s only obligation, and your only remedy, is the replacement of the product if it is shown to be defective when received. In no case will ETS Inc. be liable for any incidental, special, or consequential damages based on breach of warranty or contract, negligence, strict tort, or any other reason.