

## drilling fluids additives

## polyanionic cellulose

## **S-ES PAC LV**

S-ES PAC LV is a pure grade, low molecular weight PolyAnionic Cellulosic polymer (PAC) manufactured to meet the API Specifications 13A / ISO 13500. It is primarily used as a fluid loss reducer and shale inhibitor in a variety of drilling fluids.

Application	S-ES PAC LV is a high performance product, readily dispersible in water base drilling muds ranging from fresh water to saturated salt water and KCL drilling fluids. It is mainly used in weighted systems to avoid an uncontrollable viscosity build up. It is effective in a wide range of pH. In weighted/high solids systems, rheology, fluid loss and the shale inhibition are closely related to the presence of the polymer in the water phase and to the absorption onto solids. Consequently a replacement of the polymer lost on drilled cuttings has to be carefully considered. S-ES PAC LV can also be used in combination with S-ES PAC LV when a reduction in fluid loss value without unnecessary increase in viscosity is required. S-ES PAC LV builds up a thin, pliable and resilient filter cake. Temperature resistance is dependent on different variables such as pH, oxygen content, salt and concentrations of salts present, fluid shear rate and exposure temperature. S-ES PAC LV has been successfully field used up to 300°F (150°C).					
Treatment	S-ES PAC LV should be mixed slowly through conventional jet type mud hoppers. Best results are obtained when the product is mixed at uniform rate, no faster than the mixing equipment can handle (normally 10-20min/sk). Avoid dumping the polymer into the hopper (slugging), as this promotes the formation of lumps or fisheyes which retard dispersion and reduce efficiency. S-ES PAC LV is compatible with virtually all additives for water based systems. S-ES PAC LV can tolerate monovalent salts, such as sodium and potassium, at any concentration; divalent salts, such as calcium and magnesium, are tolerated (Ca < 1000 ppm and Mg < 2500 ppm) by S-ES PAC LV in lower pH range (< 9.5). At higher pH the product tolerates lower concentrations of these ions. S-ES PAC LV is not subject to degradation from microbiological attack. Suggested concentrations of S-ES PAC LV are in the range of 0.5-2.0 ppb (1.5-5.7 kg/m <sup>3</sup> ).					
Typical Properties	Appearance : Moisture (max.) : pH 1% solution : Bulk density: Toxicity :	whitish free flowing powder 10% 8 approx. 700 kg/m <sup>3</sup> approx. non toxic				
Packaging	25 kg multi wall paper bags (internal	PE), palletized, shrink wrapped (40 bags per pallet).				

Warranty - This information is given in good faith and to the best of our knowledge. Every user of our products is responsible as regards observation of all legal regulations including patent laws. Detailed information on handling, and eventual precautions to be observed in the use of the product can be found on our relevant Health and Safety Information Sheet.







S-ES PAC LV

## **Certificate of Analysis**

Property	Appearance	Moisture	Apparent Viscosity	Filtrate volume	Presence of starch or starch derivatives
Test Method	Visual	L0332	API 13A / ISO 13500	API 13A / ISO 13500	API 13A / ISO 13500
U. of M.	-	%	сР	ml	-
Specifications	Free flowing powder	Maximum 10	Maximum 40	Maximum 16	Absent
Batch Ref. D16493	Free flowing powder	7.2	18	11	Absent

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