

Data Sheet Issue 10/2013

LAPONITE RDS

The Clear Leader

Product Data

Special Features and Benefits

LAPONITE RDS is a synthetic layered silicate incorporating an inorganic polyphosphate peptiser. It hydrates and swells in water to give clear and colourless colloidal dispersions of low viscosity known as sols. At 10 % concentration in water, these will remain free flowing for 24 hours. On addition of small quantities of electrolyte, highly thixotropic gels are formed rapidly.

Recommended Use

LAPONITE RDS may be utilised as a predispersed liquid concentrate and added to formulations at any point during manufacture. It is used to impart a shear sensitive structure to a wide range of waterborne formulations including household and industrial surface coatings, cleansers, agrochemical and horticultural products. LAPONITE RDS may be coated onto paper or other surfaces from concentrated sols to give smooth, coherent, and electrically conductive films.

Typical Properties

The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Free flowing white powder Appearance:

Bulk Density: 1000 kg/m³ Surface Area (BET): 330 m²/g pH (2 % suspension): 9.7 Chemical Composition (dry basis) SiO₃: 54.5% Chemical Composition (dry basis) MgO: 26.0% Chemical Composition (dry basis) Li₂O: 0.8% Chemical Composition (dry basis) Na₃O: 5.6% Chemical Composition (dry basis) P₃O₅: 4.4 % Chemical Composition (dry basis) Loss on Ignition: 8.0 %

Sol Stability: Fluid after 24 hours, QA Test Code: ELP-L-2B Sieve Analysis: 2 % Max >250 microns, QA Test Code: ELP-L-6A

Free Moisture: 10 % Max, QA Test Code: ELP-L-5A

Storage and Transportation

Laponite is hygroscopic and should be stored under dry conditions.

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