AQUEOUS VERMICULITE DISPERSION

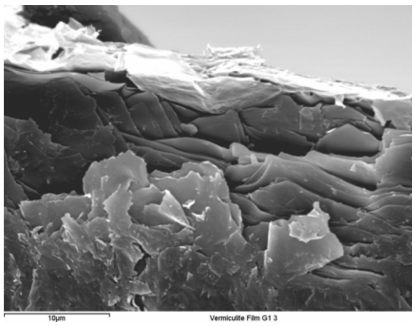
AVD(Li)

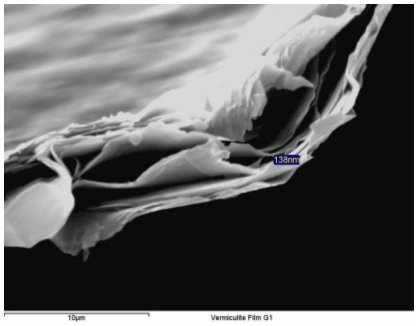
Dupré Minerals' AVD, aqueous vermiculite dispersion, is composed of high aspect ratio vermiculite platelets in water; vermiculite is the name given to a group of hydrated laminar aluminium-iron-magnesium silicates. AVD(Li) is a highly beneficiated, tightly-controlled formulation for use as the fire extinguishing agent in aerosols designed to tackle lithium-ion battery fires.

A lithium-ion battery fire may result from physical damage that causes a short circuit, overcharging or by increased external temperature. The increased temperature leads to boiling of the electrolyte and thermal decomposition of the separator and electrodes; overall, this is termed thermal runaway. Particular issues for lithium-ion batteries are the volatile and flammable electrolyte, their high energy density and the fact that they are ubiquitous – a low failure rate is still a significant number of fires.

WHAT IS AVD(LI)?

A natural mineral-based fire-extinguishing agent.
A gold/brown, stable, aqueous suspension of Vermiculite platelets.
AVD is non flammable and has excellent thermal insulation properties.





TYPICAL PROPERTIES OF AVD(LI)

It has a solids content of 13.5 %.
It's Brookfield viscosity [Sp3, 100 rpm] is <500 cP.
It's particle size as measured by light scattering is:

	Specification	Typical result
Dv90	<200 µm	<180 µm
Dv50	<70 µm	60-65 µm
Dv10	<25 µm	20 µm

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*The technical data provided herein reflects typical indicative results of testing of products under controlled conditions, to provide the best information to allow end users, specifiers, installers, contractors, retailers and alike to determine the suitability of Dupré products for intended application.

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