Dupré’s Micashield FR-DB4 is a vermiculite dispersion based paint additive designed to impart flame retardant properties to water borne decorative paint systems.

FR-DB4 is a mineral-based flame retardant with a very low VOC content. No traditional FR chemicals are included in the formulation.

Used in conjunction with water borne paint systems

“Drop in” additive

REACH exempt

Zero FR chemicals

Mineral dispersion technology

Suitable for interior deco wall and ceiling applications

New surfaces and “upgrade” options

EN 13501-1 CERTIFICATION, CLASSIFICATION B-s1-d0

WWW.MICASHIELD.COM
FR-DB4
FLAME RETARDANT ADDITIVE
FOR PAINT

Dupré’s Micashield FR-DB4 is a vermiculite dispersion based paint additive designed to impart flame retardant properties to water borne decorative paint systems.

FR-DB4 is a mineral-based flame retardant with a very low VOC content. No traditional FR chemicals are included in the formulation.

FR-DB4 is produced from carefully selected and highly beneficiated vermiculite mineral ore; the ore is then subjected to a precisely controlled delamination process and further refined to generate a base dispersion with tightly controlled physical characteristics (rheologically stable, no oversize particles); this dispersion is precisely formulated with small percentages of specific additions to yield the enhanced flame retardant product.

FR-DB4 is designed to be used as an additive in undercoat and emulsion systems for wall and ceiling board applications; it can be incorporated, as the final additive, in to the paint at levels between 10 and 60%.

The paint may be applied directly on to the boards or at higher addition levels used as an upgrade paint over existing layers of paint.

FR-DB4 is based on Class A fire-rated vermiculite, which is exempt from REACh registration as it is a natural mineral.

HEALTH AND SAFETY
A Safety Data Sheet is available on request. For additional information, advice or technical information please call Dupré Minerals on 01782 383000 or visit www.dupreminerals.com

FR-DB4 TYPICAL PROPERTIES
Solids Content: 25 – 30% by mass
Brookfield Viscosity: 7500 ± 2500 cP
pH 9.0 ± 0.5

STORAGE AND USE
FR-DB4 should be kept in air tight containers. It should be stored at temperatures above 4 °C. Dilution of the product is not recommended.

PERFORMANCE FR-DB4
Two base-coats of FR-DB4 (20%) mixed with a proprietary water-based matt emulsion (80%) were applied to 10 mm plasterboard; two top-coats of the standard emulsion were then applied.

The system was independently tested to EN 13501-1:2007+A1:2009 and classified according to B – s1, d0.

DM880 MATT EMULSION
FR-DB4 is combined with commercially available pigment grade titanium dioxide, paint grade aqueous polymer emulsion and standard paint thickeners and additives to produce an upgrade paint with the following properties and performance. Two coats of DM880, ~15 m² L⁻¹ coverage, were applied to plaster board previously painted with multiple coats of standard solvent and water based paints.

Colour: Cream
Solids Content: 35% by mass
Wet film thickness: 85 μm
Brookfield Viscosity: 1500 cP

The upgraded system was independently tested to BS476 parts 6 & 7 and achieved a UK Building Regs 2010, Approved Document B rating of Class 0 also EN 13501-1:2007+A1:2009 and classified according to B – s1, d0.

Information presented here is given in good faith as accurate and reliable but is not to be taken as a guarantee. The figures provided are intended to be a guide to expected average values and should not be interpreted as a specification. Any potential applications referred to are not to be construed as recommendations. It is the responsibility of the user to determine suitability for any specific purpose.