

Introducing Kemgard® 631 Smoke Suppressant and Fire Retardant

Designed To Meet and Exceed Today's Global Performance and Regulatory Demands for **PVC Coated Textile** and **PVC Film Applications**

Product Description

Kemgard® 631 smoke suppressant and flame retardant from Huber Advanced Materials is used in a variety of flexible PVC coated textile and film applications. From PVC coated fabrics used for tents, awnings and ventilation duct to decorative window shades and signage used in today's building and construction market, Kemgard® 631 can assist in meeting your most challenging smoke and fire retardant requirements.

Kemgard® 631 is designed to impart efficient performance via gas and condense phase modes of action. In the gas phase, Kemgard® 631 acts as a free radical scavenger disrupting the combustion process. In addition, the fire retardant active core material further improves the efficiency through improved organic char formation. Kemgard® 631 has been shown to fully replace antimony trioxide (ATO) and zinc borate in flexible PVC coated fabric and film applications.

Kemgard® 631 represents Huber's latest halogen-free fire retardant complex technology specially designed for flexible PVC coated textile and film applications



Kemgard® 631 Advantages

- Balanced fire retardance and smoke suppression
- Can be used to fully replace ATO and Zinc Borate
 - Good balance of price and performance for cost sensitive formulations
 - All products are TSCA, REACH, IECSC and ENCS registered
- Beyond LOI, superior fire retardant performance as measured by ASTM E1354 cone calorimeter (lower PHRR and FIGRA)

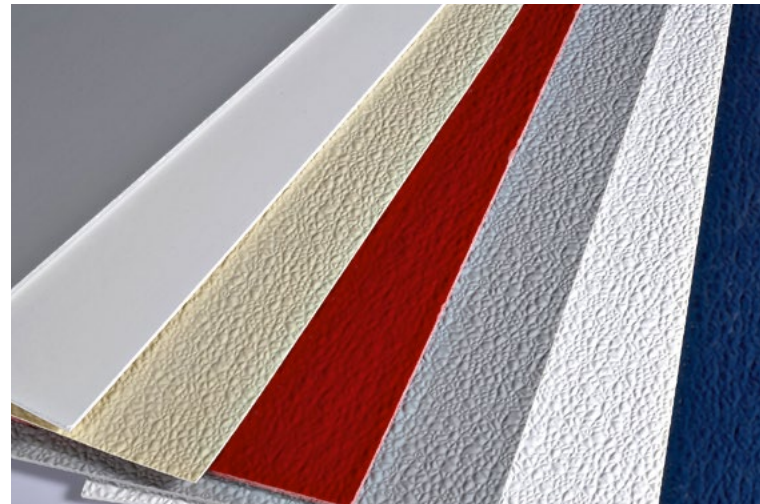


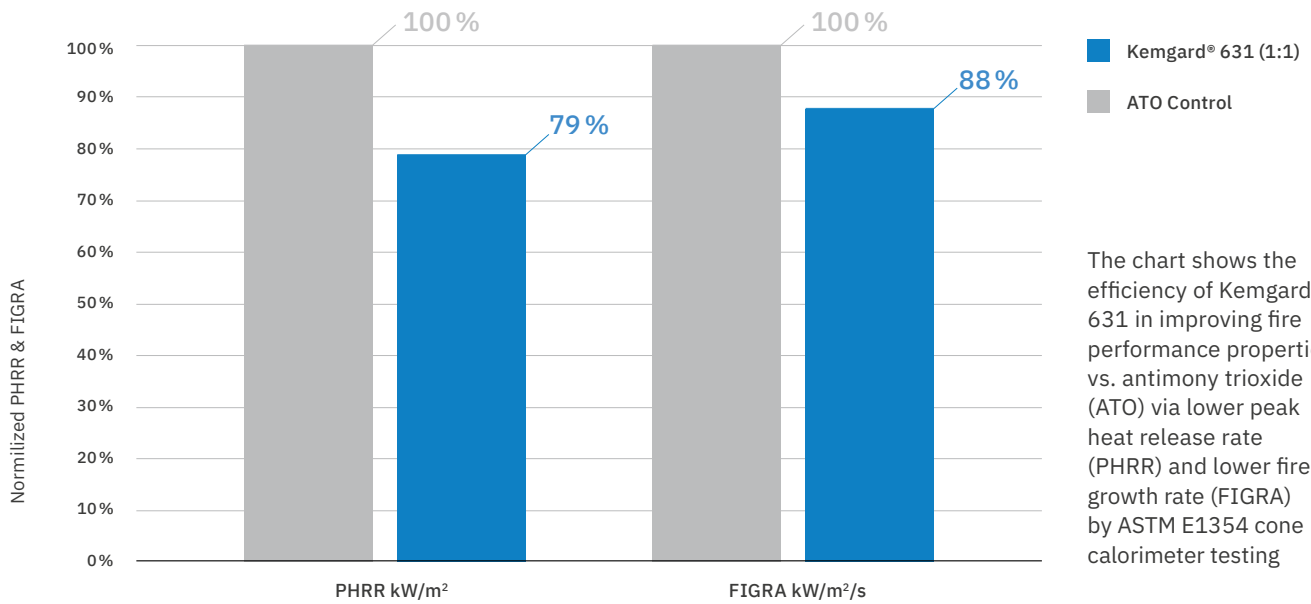
Fig. 1: PVC Coated Fabrics

Flexible PVC Film Formulation¹

Ingredients	Antimony Trioxide (ATO) Control	Kemgard® 631
PVC resin (K70)	100	100
Plasticizer	50	50
Filler	12	12
Lubricant	1	1
Pigment	5	5
Stabilizer	3.2	3.2
Hydral® 710 Aluminum Hydroxide	23.5	23.5
Antimony Trioxide	8	0
Zinc Borate	4	0
Kemgard® 631	0	12
Total PHR	206.7	206.7
Normalized Peak Heat Release Rate	100%	79%
Normalized Fire Growth Rate	100%	88%
Limiting Oxygen Index ²	27	29

¹Testing was completed in the above general purpose flexible PVC film formulation
²As Measured on film samples with a thickness of less than or equal to 0.25 mm

Fire Retardant Efficiency of Kemgard® 631



Superior Technical Expertise and Customer Care

Huber's unsurpassed technical support is its foundation in developing innovative fire retardant additives like Kemgard® 631, an effective smoke suppressant and fire retardant that meets the exacting requirements for your

application. Huber also offers customer service second-to-none, and we look forward to working with you. For more information or to order Kemgard® 631 product samples, contact us today.

Visit Us Online Globally at
huberadvancedmaterials.com

Huber Advanced Materials Martinswerk GmbH

Europe, Middle East, Africa & India
 +49 2271 9020
 info@martinswerk.com

Huber Advanced Materials HEM (Qingdao) Co. Ltd.

Asia Pacific
 +86 532 58792008
 hubermaterials@huber.com

Huber Advanced Materials

Americas
 +1 866 564 8237
 hubermaterials@huber.com



Fig. 2: PVC Canopy Tent

