

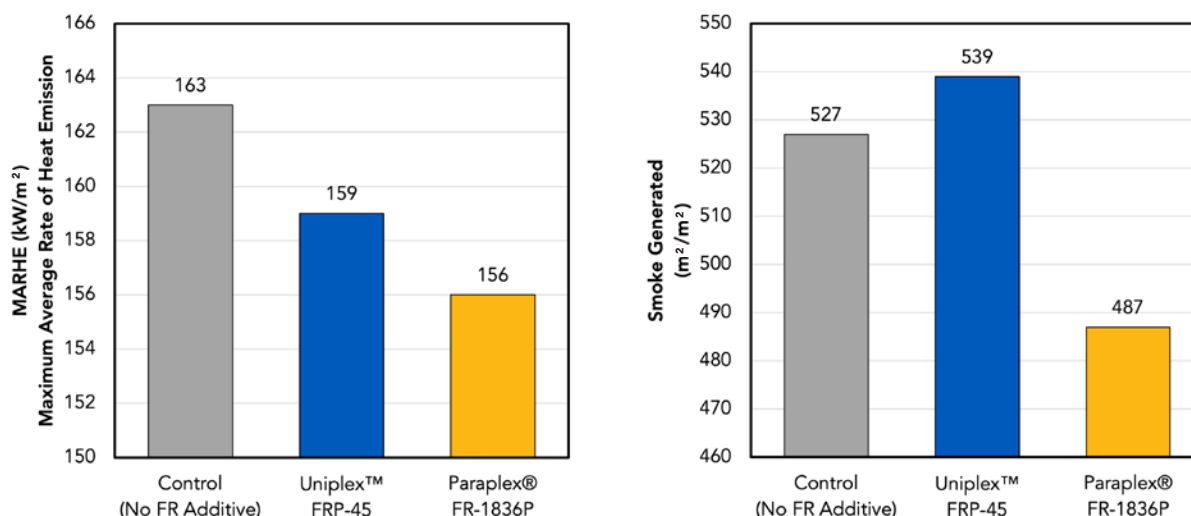
PARAPLEX® FR-1836P

A new bromine-based, non-SVHC flame retardant, offering a safer and more sustainable solution for PVC formulations

- Designed for formulating PVC compounds that require both flame retardancy and plasticizing efficiency
- Eliminates SVHC issues, reducing risk and regulatory obstacles
- Studies comparing Paraplex® FR-1836P to the industry standard (Hallstar's Uniplex™ FRP-45) and to no FR additive (control) demonstrate:
 - MARHE value of 156 kW/m²: a 4.3% improvement compared to no FR additive
 - Paraplex® FR-1836P has a 487 m²/m² smoke generation value which is 7.6% less smoke generation compared to no FR additive



FR ADDITIVE PERFORMANCE



Physical Properties

Additive	Tensile Strength (psi)	Plasticizing Efficiency (M100) (psi)	% Wt. Loss (Heat Aging)	Glass Transition Temperature (°C)
Control (No FR Additive)	2700	1400	-13	-46.9
Uniplex™ FRP-45	2630	1340	-12	-45.9
Paraplex® FR-1836P	2780	1420	-13	-45.0

Flame Retardant Properties

Additive	MARHE (kW/m ²)	Smoke Generated (m ² /m ²)	Peak HHR (kW/m ²)	Average HRR over 60s (kW/m ²)	% Wt.. Loss on Burn	Total Heat Released (MJ/m ²)
Control (No FR Additive)	163	527	364	170	96.3	14.4
Uniplex™ FRP-45	159	539	362	165	94.7	13.5
Paraplex® FR-1836P	156	487	363	155	88.9	11.6

*Studies used a formulation containing: K70 PVC - 100 phr, Plastistab 2187 - 2 phr, Paraplex® G-62 - 5 phr, DOA - 5 phr, Additive Variable - 5 phr.

Uniplex™ is a trademark and Paraplex® is a registered trademark of Hallstar.

REQUEST A SAMPLE

Contact your Hallstar account manager

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