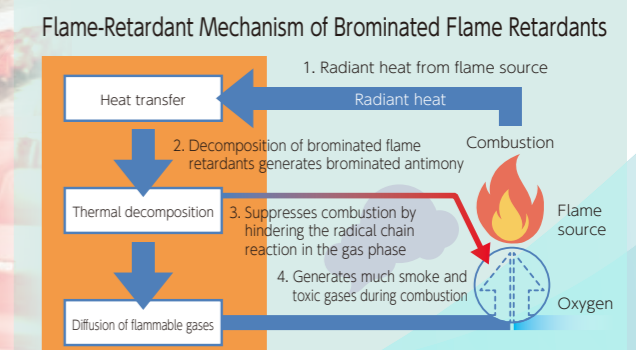
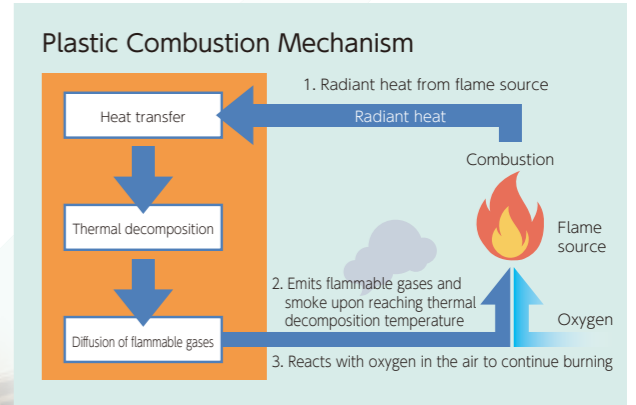
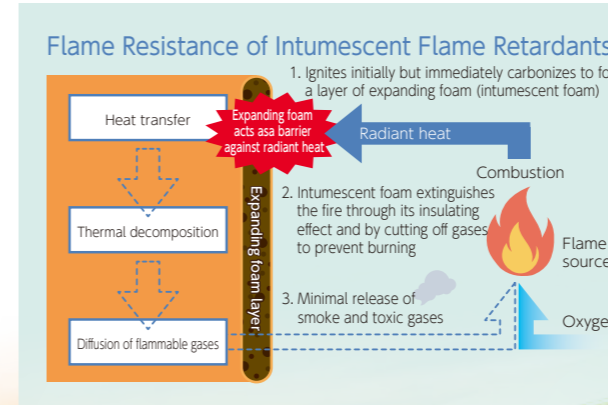
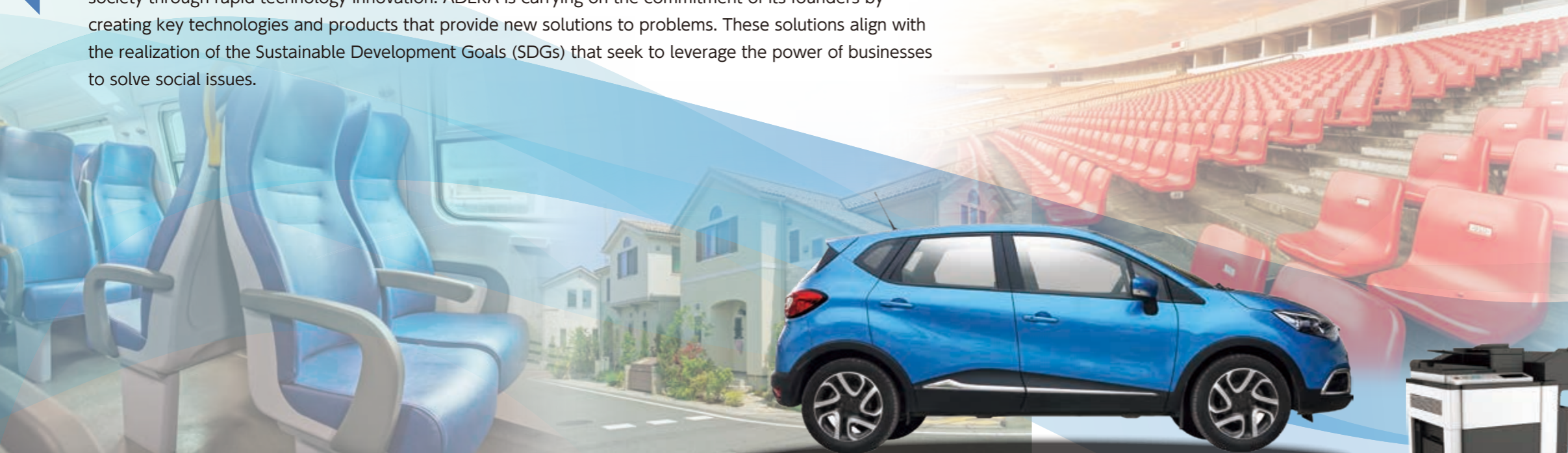


Contributing to Society through Technologies and Products That Bring Tomorrow Closer

ADEKA was established in 1917 to manufacture caustic soda in Japan, with prices rising as a result of World War I. Shortly thereafter, ADEKA began manufacturing hydrogenated oils to effectively use the hydrogen byproduct, later expanding into soap and margarine production. It was from these roots that ADEKA grew to its unique position as a company based on the twin pillars of chemicals and foods. ADEKA's founding prospectus reads, "In the interest of Japan and its citizens, caustic soda production in Japan should be achieved as soon as possible." These words embody ADEKA's commitment to benefitting society through rapid technology innovation. ADEKA is carrying on the commitment of its founders by creating key technologies and products that provide new solutions to problems. These solutions align with the realization of the Sustainable Development Goals (SDGs) that seek to leverage the power of businesses to solve social issues.



ISO 5659-2 Signal Chamber Test Results

Measurement of smoke density and toxic gas release when applying heat to test object

Additive (Percentage of Formula)	Smoke Density (Ds max.)	Toxic Gases	
		Brominated Hydrogen	Carbon Monoxide (mg / m ³)
No additive	727	0.07	601
Brominated flame retardant BR-FR (22%)	792	0.37	5,114
Intumescent flame retardant FP-2500S (25%)	99	0.03	373

Chemicals

Polymer Additives

Carbonized layer of foams expands to provide a barrier that protects precious lives and important assets

Intumescent Flame Retardants ADK STAB FP-2000 Series

- Applications**
- All kinds of plastic products and components
- Advantages**
- Inhibits fire spread and heat release rate
 - Reduces smoke
 - Reduces smoke toxicity

Enhanced Fire Safety and Fire Spread Prevention Social Value of Advanced Flame Retardants

Many precious lives are lost from smoke and toxic gas inhalation in fires. Advanced additives that give fire retardant properties to plastics serve to inhibit the spread of fire, as well as inhibit smoke and toxic gases to improve fire safety. With the standardization of EU regulations for railway-related components, reference values have been established for smoke emissions and smoke toxicity for components used near passengers.

With other regions such as China adopting similar standards, the use of advanced flame retardants is expected to grow both for railway and other transportation sectors, and for public facilities.

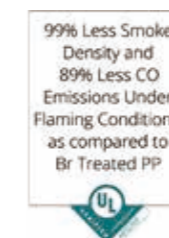
Intumescent Flame Retardants That Satisfy Advanced Requirements

Intumescent flame retardants realize enhanced flame resistance while reducing smoke and smoke toxicity. They contain phosphorus and nitrogen to form a carbonized layer of foams that provides a barrier to fire.

TOPICS »

ADK STAB FP-2000 Series—Worlds' First Performance Material to Receive UL Verified Mark

Underwriters Laboratories (UL), a U.S.-based safety science company that provides independent, third-party scientific testing services, tested a plastic sample containing ADK STAB FP-2000 Series intumescent flame retardant against a sample mixed with a brominated flame retardant. The testing verified that the plastic sample containing ADEKA's flame retardant generated 99% less smoke and 89% less carbon monoxide. Based on the test results, UL issued a UL Verified Mark that certifies the performance claims for ADK STAB FP-2000 Series.



TOPICS »

ADK STAB FP-900L—Realizing Thin Housings and Cases for Electrical Appliances

The increasing thinning of electrical appliances has created demand for thin housings. ADK STAB FP-900L intumescent flame retardants maintain the strength of components and can be used to reduce thickness and increase flame resistance. This results in engineering plastics that reduce thickness and flammability, making for a more comfortable and safe society.

