## **LEADER IN FIRE RETARDANT RESIN**



# FlameGuard

We Safeguard Your Investment



FlameGuard offers one of the world's most comprehensive portfolio of fire retardant polymer solutions, formulated to meet the specific needs of the global composite industry.

Regarded as the new market leader in the development of fire retardant polymer solutions, the company has an aggressive commitment to technological innovation and product development. Our extensive line of products include fire retardant orthophathalic, isophathalic, vinyl ester (bisphenol A and Novalac) and epoxy resins.

### FlameGuard fire retardant resins are tested under the following:

- 🕢 British Standard 476 Part 6 and 7
- ASTM E84
- // Underwriters Laboratary UL-94

Fire is often the cause of destruction of personal property and investment. Flameguard fire retardant resin make products safer by blocking the starting and fuelling a fire. They are used in industries including marine, transport, oil and gas, building and construction, daily products, chemical and corrosive environment......etc.

Demanding applications, increasingly tougher safety standards, and the need for economically and ecologically balanced solutions makes your choice of fire retardant resins ever more pressing. The expansion of the FlameGuard resin family reflects our understanding that fire retardant product fabrication involves complex issues that are best addressed with a range of resin options. We make sure we can offer the chemistry that best meets your requirements.

FlameGuard is regarded as the new market and technology leader in the development of Fire retardant resins for the composite industry. Our proprietary technology creates products that are cleaner, easier and safer to handle.











## FLAMEGUARD PRODUCT SELECTION GUIDE

Select the correct resin type for the correct application. The various types of resins are tested under different standards widely recognized around the globe. Contact WTT or your local distributor for more information.

#### Orthophthalic Resin

Product	Colour	Test Standard Rating		Application
K133-A1	White	British Standard	Achieves Class "0" under BS 476	Used as a final FR coating for all kinds of products including composite, plastics, wood, steel, concreteetc
K133-A	White	British Standard	Achieves Class "1" under BS 476 Part 7	Widely used in transportation and marine parts. Ideal for use in building interior,
2597PT-FR-26	White	British Standard	Achieves Class "2" under BS 476 Part 7	decorative products and other composite
A4100-A	White	ASTM	Achieves Class "1" under ASTM E-84	product including boats and canoes, bath tubs, water and storage tanks, cooling towers,
A4200-A	White	ASTM	Achieves Class "2" under ASTM E-84	plant and flower pots, bath unit, models, containers, dustbins, safety helmets, water
U8100-A	White	Underwriters Laboratory	Achieves "HB" rating under UL-94	pipes, car body, sporting equipment, concrete
2597PT-FR-26	White	Underwriters Laboratory	Achieves "V-0" rating under UL-94	framings, chairs and tables, and other household articles.

Isophthalic Resin*					
Product	Colour	Test Standard	Rating	Application	
K150-A	White	British Standard	Achieves Class "1" under BS 476 Part 7	Provides chemical resistance against mild	
209PT-FR-26	White	British Standard	Achieves Class "2" under BS 476 Part 7	chemicals. Ideal for use in chemical tanks, septic tanks, covers, scrubbers, air duct, oil	
A5100-A	White	ASTM	Achieves Class "1" under ASTM E-84	and petroleum pipes,etc. Widely used in the manufacturing of critical parts in the	
A5200-A	White	ASTM	Achieves Class "2" under ASTM E-84	transportation and marine industry.	
U8310-A	White	Underwriters Laboratory	Achieves "HB" rating under UL-94		
U8320-A	White	Underwriters Laboratory	Achieves "V-0" rating under UL-94		

#### **Bisphenol A Vinyl Ester Resin\***

Product	Colour Test Standard		Rating	Application	
K180-A	White	British Standard	Achieves Class "1" under BS 476 Part 7	Provides chemical resistance against strong	
7121-FR	White	British Standard	Achieves Class "2" under BS 476 Part 7	chemicals. Ideal for use in chemical tanks, septic tanks, covers, scrubbers, air duct,	
A6100-A	White	ASTM	Achieves Class "1" under ASTM E-84	vessels, oil and petroleum pipes, on-site installation and maintenance projects	
A6200-A	White	ASTM	Achieves Class "2" under ASTM E-84	particularly in the chemicals, paper and pulp and oil and gas industriesetc. Widely used	
U8510-A	White	Underwriters Laboratory	Achieves "HB" rating under UL-94	in the manufacturing of critical parts in the	
U8520-A	White	Underwriters Laboratory	Achieves "V-0" rating under UL-94	transportation and marine industry.	

Novalac Vinyl Ester Resin*					
Product	Colour	Test Standard	Rating	Application	
K300-A	White	British Standard	Achieves Class "1" under BS 476 Part 7	Provides excellent chemical resistance against strong chemicals. Suitable for applications such	
K250-A	White	British Standard	Achieves Class "2" under BS 476 Part 7	as high temperature chlorination or caustic	
A7100-A	White	ASTM	Achieves Class "1" under ASTM E-84	scrubbing and storage, industrial waste facilities and solvent/extraction processes. Used in	
A7200-A	White	ASTM	Achieves Class "2" under ASTM E-84	hydrochloric acid transport, tank, truck and railcar linings and gasohol storage. Ideal for use in	
U8710-A	White	Underwriters Laboratory	Achieves "HB" rating under UL-94	chemical tanks, septic tanks, covers, scrubbers, air duct, vessels, oil and petroleum pipes, on-site	
U8720-A	White	Underwriters Laboratory	Achieves "V-0" rating under UL-94	installation and maintenance projects particularl in the chemicals, paper and pulp and oil and ga industriesetc.	

 Epoxy System

 Product
 Colour
 Test Standard
 Rating
 Application

 K-100
 White / Black
 British Standard
 Achieves Class "0" under BS 476 Part 7 Black
 Used as a final coating for epoxy based products. Can also be used to create FR epoxy laminate

Gelcoat*				
Product	Colour	Resin Type	Test Standard	Rating
GS-5200-4-FR	Clear	Orthophathalic	British Standard	Achieves Class "2" under BS 476 Part 7
GS-5200-8-FR	Clear	Isophathalic	British Standard	Achieves Class "2" under BS 476 Part 7
GS-5200-12-FR	Transparent Green	Bisphenol A Vinyl Ester	British Standard	Achieves Class "2" under BS 476 Part 7
GS-5200-16-FR	Transparent Green	Novalac A Vinyl Ester	British Standard	Achieves Class "2" under BS 476 Part 7

\* Chemical Corrosion Resistance Chart available upon request

**WTT** offers worldwide availability of FlameGuard resins through its network of distributors. Please contact WTT for FlameGuard resins that meet your corrosion resistant specifications and put the technology and service of our Team to work for you.

#### **FlameGuard History**

FlameGuard is a division of Wee Tee Tong Chemicals, headquartered in Singapore, with executive offices in Malaysia and China. Wee Tee Tong is a global company comprising of several divisions, namely chemicals, palm oil, palm oil mill, property and construction.

WTT Chemicals focuses on the development and sales of fibreglass and composite materials that enhance the quality and performance of today's products. Our integrated network sales and distribution and committed production, research and technical service facilities serve customers around the world.

#### We have a commitment

#### ... to Operational and Distribution Excellence

WTT is committed to maintaining the highest standards of excellence and continuous research and development in everything that we do. We have developed and implemented best practices throughout our organization to achieve high product quality, manufacturing productivity and customer satisfaction.

#### ...to Service

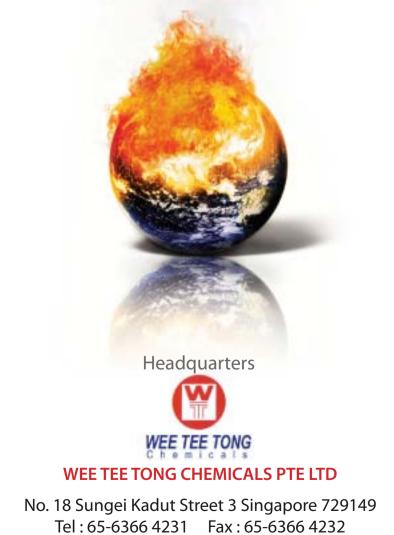
We recognize that our customers require quality service to develop and secure projects around the world. That's why all our sales engineers are trained to you with the highest standard of technical competence and advise.

#### ...to Product Innovation

Market driven, new product development is a priority within WTT. We focus on moving new products quickly from concept to commercialization. With a broad expertise in composite technologies, our development focuses on market requirements aiming at expanding our portfolio of flame retardant resins.

**WTT** offers a wide range of composite materials. Access www.weeteetong.com for a wealth of information on our products and where they can be used.

Contact your nearest sales representative or WTT for any enquiry.



E-Mail : info@weeteetong.com Website : www.weeteetong.com

This guide is for your general information and advice. The information contained herein is given to the best of our knowledge and experience; however, any recommendations or suggestions are made without warranty or guarantee. Applications described in this bulletin are only to assist you in your own analysis. We assume no responsibility for any applications, recipes or recommendations. All users of our products are responsible for compliance with all applicable laws and regulations, including patents, health and safety.