

KANEKA

KANEKA BELGIUM NV

The Dreamology Company

—Make your dreams come true—

Kane Ace™ MX

Liquid Tougheners for Your
Thermoset Application



Kane Ace™ MX - Fields of applications

Kane Ace™ MX is suitable for use in a wide variety of applications, maximizing the overall performance of the complete system.

Kane Ace™ MX is a liquid toughener in which nano rubber particles are homogeneously dispersed, up to a concentration of 45wt%, in a liquid curable resin (mainly epoxy). Since the nano rubber particles are dispersed in advance, there is no need for a complicated mixing process. While maintaining the characteristics of liquid curable resins (heat resistance, rigidity, etc.) Kane Ace™ MX improves fracture toughness, adhesive strength, impact and thermal cycle resistance, etc. in a wide variety of applications.



Wind Energy



Aerospace



Automotive



Nautical

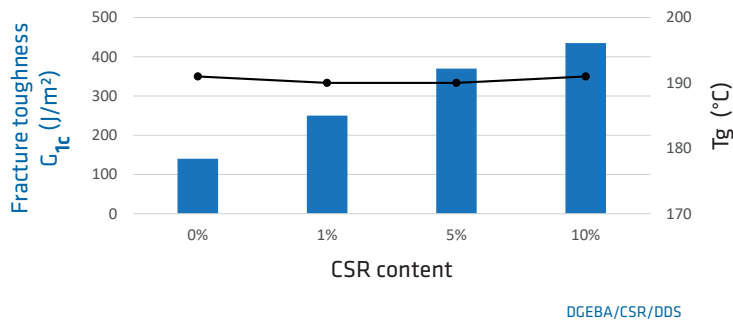


Piping



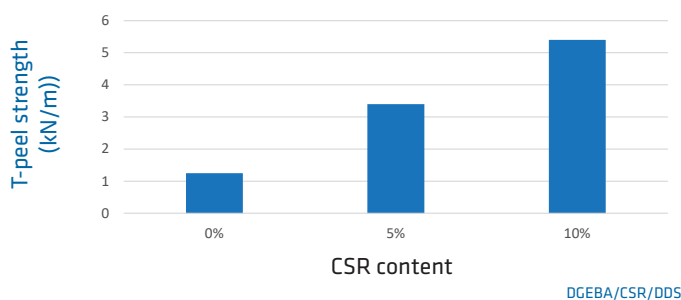
Electric & Electronics

Kane Ace™ MX - Improve fracture toughness, without deterioration of T_g.



By adding Kane Ace™ MX, fracture toughness is remarkably improved, without deterioration of T_g.

Kane Ace™ MX - Improve T-Peel strength



T-Peel strength is increased with an increase of Kane Ace™ MX CSR content.

Kane Ace™ MX

What is Kane Ace™ MX

Kane Ace™ MX is Kaneka's novel core-shell rubber (CSR) toughening system for thermoset resins. It is a predispersed CSR Masterbatch which enhances the physical properties of the resins through optimal dispersion of core-shell particles.

The revolutionary liquid impact modifiers of Kane Ace™ MX achieve highly improved strength, improved fracture toughness and endurance without losing the heat resistant characteristics of thermoset resins.

The liquid nature guarantees an easy handling and mixing into your system. A consistent morphology means a consistent performance.

Structure

Kane Ace™ MX is a concentrate of CSR toughening agent in liquid epoxy resin. The CSR remains uniformly dispersed under normal handling, formulating and curing conditions.

Product range

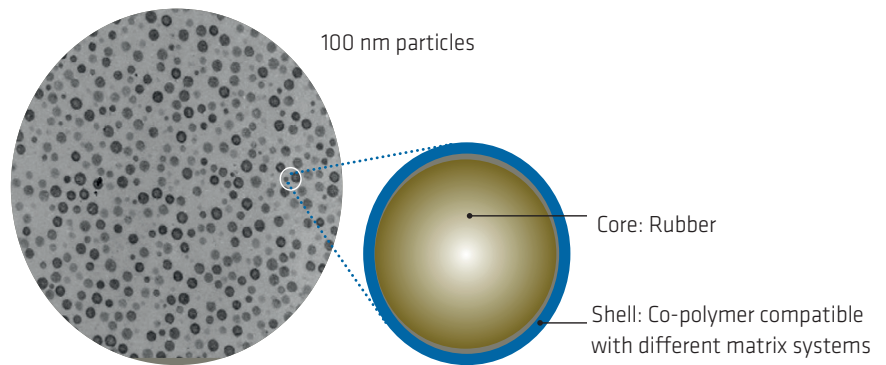
Dispersions in different resins are available, and combined with different types of CSR we can offer the ideal compatibility with existing resin systems.

Considering a CSR content between 25 and 45%, we are able to provide a solution for almost all resin systems.

CSR types:

- Styrene-Butadiene Rubber
- Polybutadiene Rubber
- Silicone Rubber
- others

Kane Ace™ MX contributes to superior toughness, lighter weight and improved reliability with high crack resistance.



Benefits of Kane Ace™ MX liquid toughener



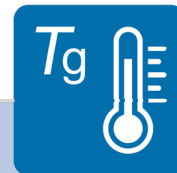
Fracture toughness

Improved fracture toughness for thermoset applications



Fatigue resistance

Superior performance during lifecycle
Increased reliability and durability



No Tg deterioration

Maintain heat resistance
Good performance at low temperatures



Easy mixing and processing

Low viscosity compared to other tougheners
Optimal dispersion
Wide cure window



Improved T-peel strength and lap shear

Significant improvement in T-peel and lap shear strength.

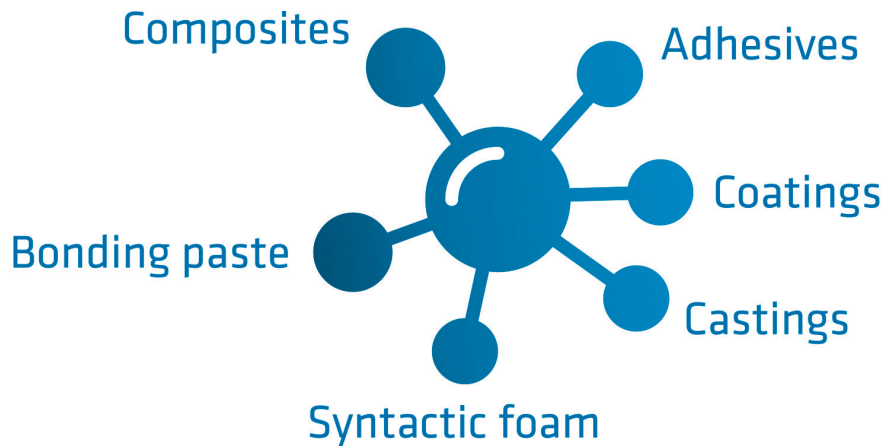


Cost reduction

Easy handling and mixing
Shorter production time, resulting in a cost reduction

Kane Ace™ MX - Applications

Kane Ace™ MX is suitable for adhesive, composite, bonding paste, coating, casting, electric and syntactic foam applications. Curable liquid resins, enhanced with Kane Ace™ MX, enable the use of new technologies in a variety of fields, including wind energy, aerospace, automotive, nautical, piping, electrics and electronics, and many more. The extended lifespan and realized weight savings contribute to a reduced carbon footprint.



About Kaneka

Every day you come into contact with products and applications that have their origin at Kaneka Belgium. We supply intermediates for the manufacturing of products in a variety of industries, including the environmental and energy sector, automotive, construction, information and telecommunication.

Kaneka Belgium is a subsidiary of Kaneka Corporation, a leading technology-driven company headquartered in Osaka and Tokyo, Japan.

Kaneka Corporation focuses on four strategic solutions units: materials, quality of life, health care, and nutrition. Business activities span a broad spectrum

of markets, ranging from specialty chemicals, plastics, synthetic fibers, photovoltaics and E&E materials to pharmaceuticals, medical devices, and food ingredients.

At Kaneka, we are infusing dreams into science to make real things that have never existed before, and we are creating a variety of new products and technologies that support the lives of people.

We are advancing into a future with unique and innovative materials for a wide range of fields, including functional plastics, bio-based and biodegradable resins, electronics, and life sciences.

Our innovative approach and efforts to develop unique solutions contribute to protecting the global environment and enriching people's lives.

We are a company that realizes dreams through science.

We are Kaneka.

- Established in 1949
- 11,335 employees worldwide (2022)
- 33,046 mln. Yen paid in capital (2022)
- +85 consolidated subsidiaries



Contact EMEA region

Kaneka Belgium nv

Nijverheidsstraat 16
B-2260 Westerlo-Oevel
Belgium
Tel. +32 (0) 14 25 78 00

www.kaneka.be

Kane Ace™ MX

Contact: Akio Taniguchi
Sr. Business Manager MX
Tel. +32 (0) 474 94 16 87
E-mail: info.mx@kaneka.be

www.kaneka.be/kane-ace-mx



The material and information contained in this document is of a general commentary nature only and is not intended to be a comprehensive exposition of the subject or other issues arising with respect to this subject.

Kaneka Belgium tries to provide quality information, but makes no representations, warranties, assurances, claims, promises or guarantees as to the accuracy, currency, completeness, or adequacy of the information contained herein. Kaneka Belgium disclaims any liability to any person in respect of anything and the consequences of anything done wholly or partly in reliance upon the content or any information provided in this document. Statements in this document regarding performance forecasts and other prospects are based on currently available information and certain assumptions that Kaneka Belgium considers reasonable, and Kaneka Belgium does not guarantee their achievement. Actual results may differ due to various factors.