

MS Polymers™ : Solution provider for the European Green Deal

Dr. Steven Vandebril

Location: Palazzo FAST

Date: **31.01.2024**

Time: **11:00 – 11:20**

Kaneka Belgium

Nearby 50 years experience in developing and manufacturing specialty chemicals to encompass diverse **functional and foamed plastics solutions** for applications in **industrial, automotive, building & construction, packaging, consumer, DIY, and residential sectors**

- Headquarters and plant located in Westerlo-Oevel, Flanders
- Founded in 1970 (first commercial activity in 1974)
- Kaneka's first subsidiary outside Japan
- First production site of a Japanese chemical company in Belgium & Europe
- Cornerstone for globalization goals



3 production units operating in the field of functional and foamed plastics



Kane Ace™

Impact Modifiers

Enhancing the properties of PVC and engineering plastics

Eperan™

Foamed Plastics

PE or PP expanded particle foams

Kaneka MS Polymer™

Liquid Polymers

Base resin for adhesives and coatings



Annual sales
€ 398 Mio



Employees
344



Kaneka MS Polymer™

Liquid Polymers

Hybrid polymer technology for high-quality sealants, adhesives and coatings

Characterized by:

- **Superior adhesion**
- **No isocyanates/no solvents**

Used in various applications:

- **Building & Construction**
- **Waterproofing**
- **Transport - Automotive**
- **DIY**
- **Parquet**
- **Marine**

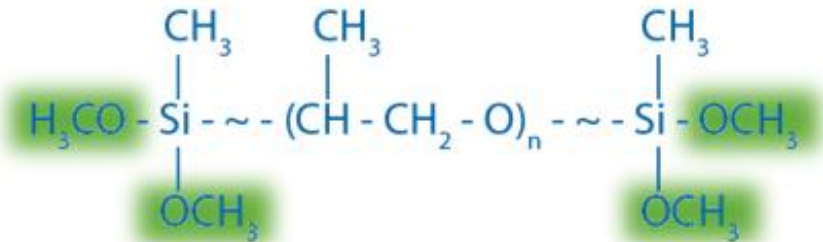


● — 1974 | Impact Modifiers — ● — 1985 | Eperan Foam Particles — ● — 1997 | Liquid Polymers

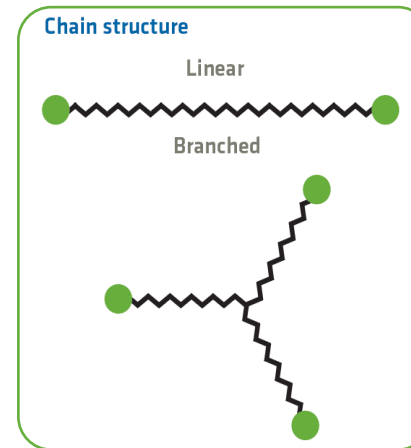
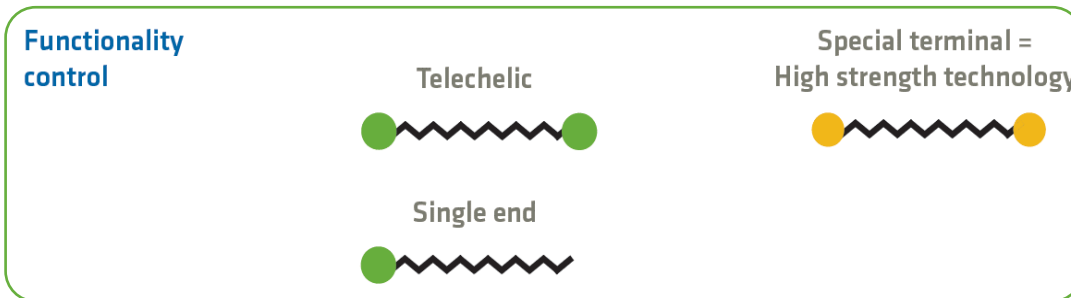
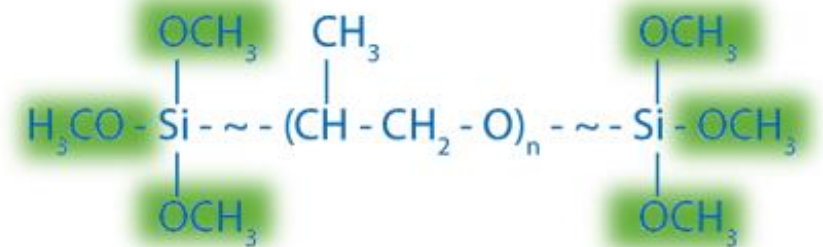
MS Polymer™ technology platform

- MS Polymer™
 - Kaneka = pioneer since 1978
 - Polyether backbone
 - Dimethoxysilyl vs. Trimethoxysilyl
 - Moisture-curing technology

Structure of DMS type Kaneka MS Polymer™



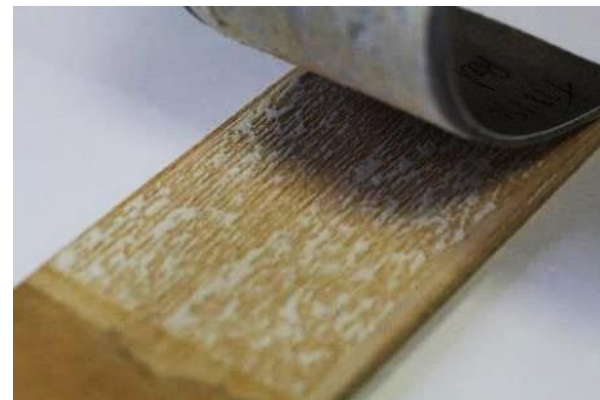
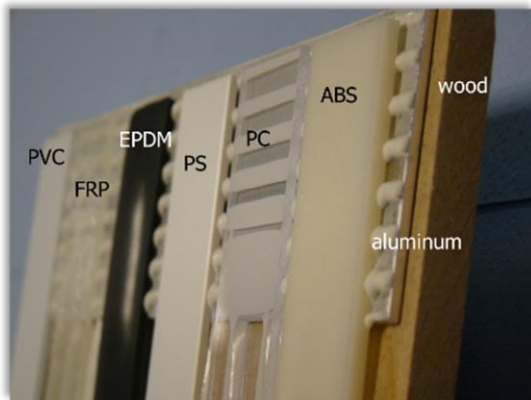
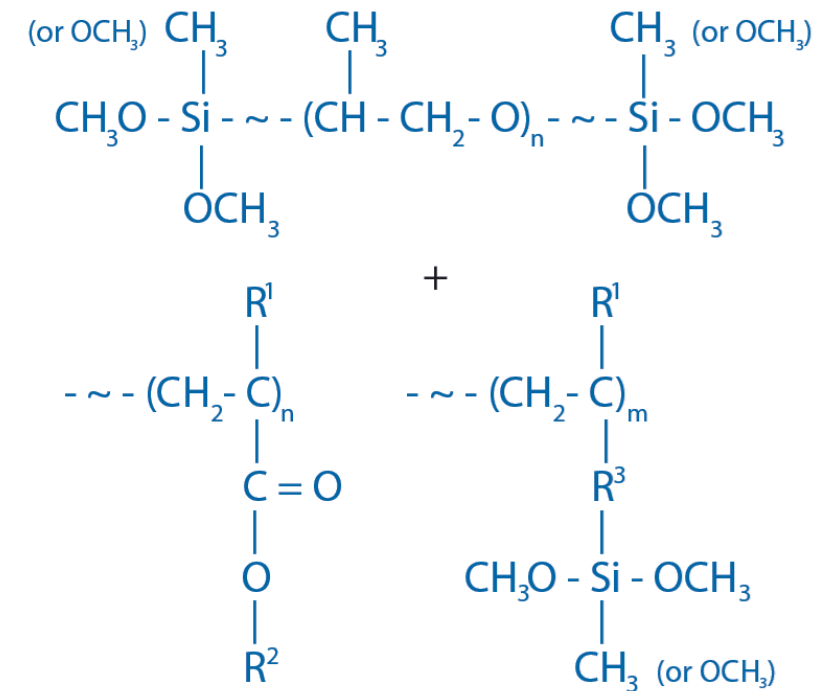
Structure of TMS type Kaneka MS Polymer™



MS Polymer™ technology platform

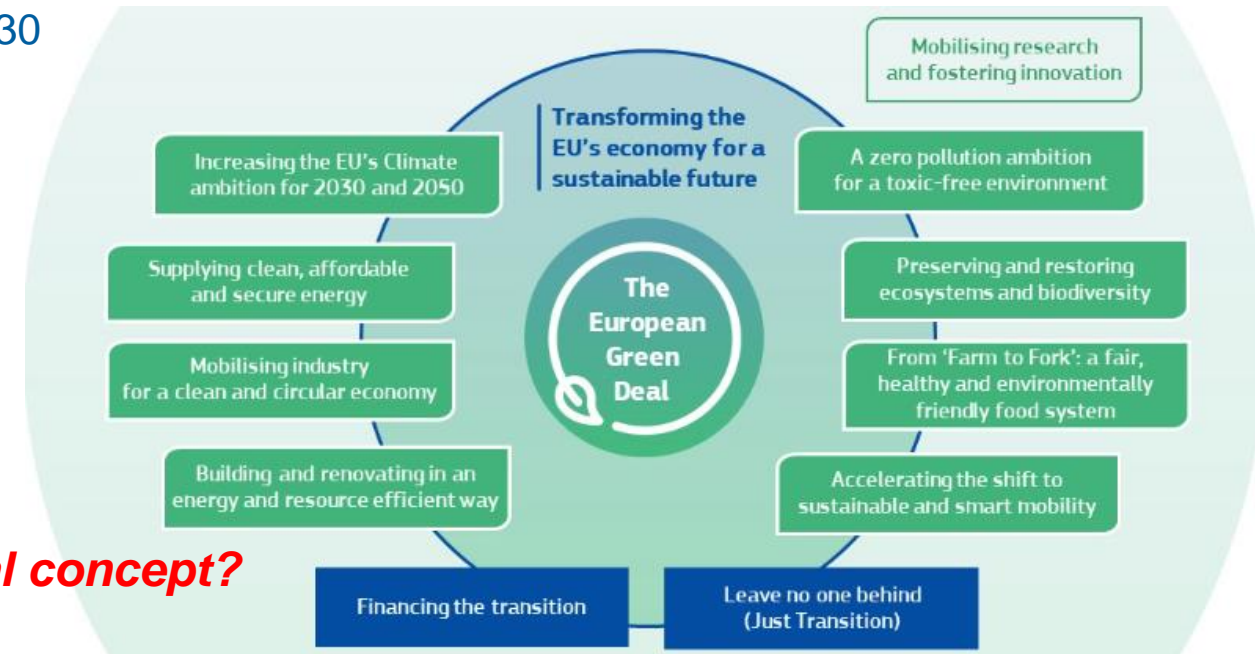
- Acryl-modified MS Polymer™
 - Kaneka = exclusive supplier since 1986
 - Blend Polyether + Polyacrylate
 - Dimethoxysilyl vs. Trimethoxysilyl
 - Moisture-curing technology
 - Enhanced UV-weatherability + adhesion onto plastics

Structure of acrylic modified type Kaneka MS Polymer™



European Green Deal

- EU's main new growth strategy: Transition EU economy to **sustainable** economic model
- Main objective:
 - 55% greenhouse gas emission reduction by 2030
 - Climate-neutral by 2050
 - Improve well-being citizens
 - Ensure health of future generations
- Action plan
 - Covering all sectors in economy
- **How does MS Polymer™ fit within Green Deal concept?**





European Green Deal

■ Sustainable chemicals: toxic-free environment

- MS Polymer™: label-free and environmentally friendly resin for sealants/adhesives/coatings
- Solvent-, label- and tin-free formulations
- Biobased products: functionalized lignin bio-additives
 - *Enhanced thermal and UV-stability*
- Silane-functional reactive plasticizers
 - *Avoid harmful migration effects*
- Acryl-modified MS Polymer™
 - *Increase lifespan of sun-exposed applications*
- Life Cycle Assessment: Cradle-to-Gate
 - *Environmental Product Declaration (EPD)*
 - *Further CO₂ emission and energy consumption reduction*

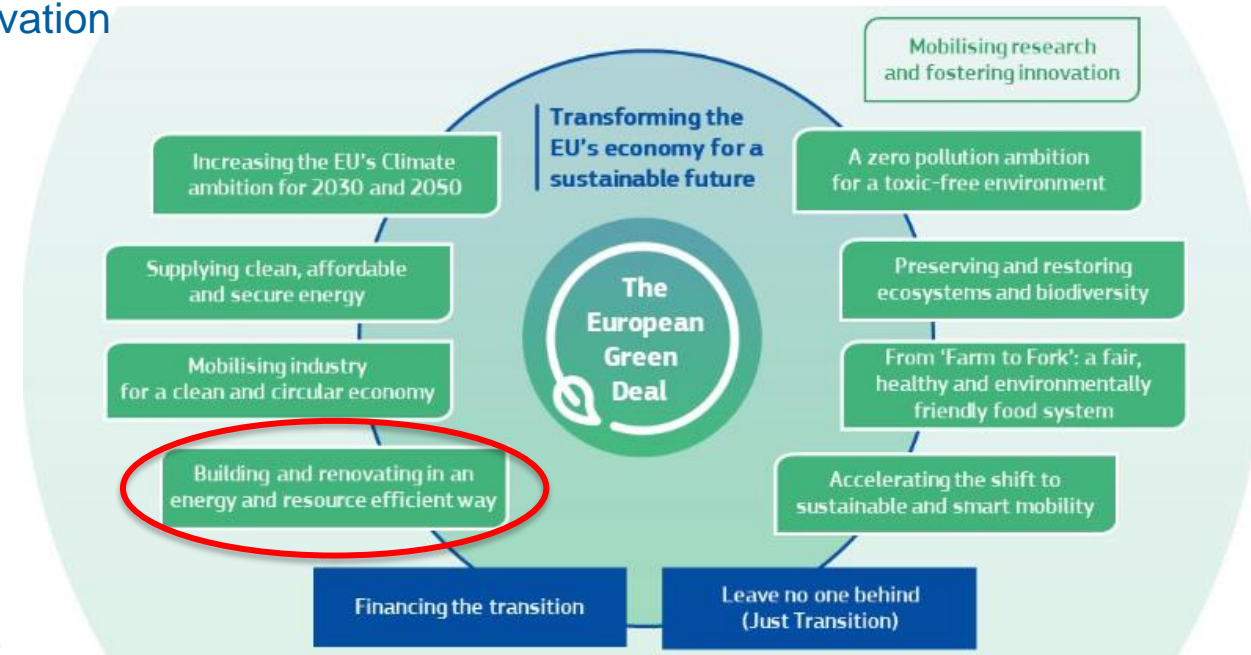




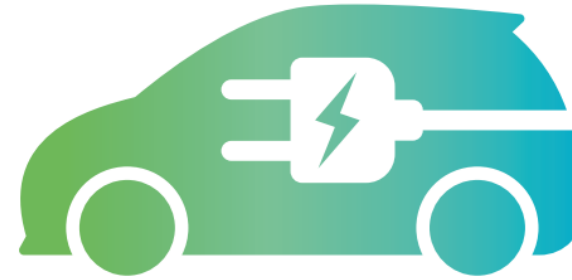
European Green Deal

- **Renovation wave: improve energy and resource efficiency**
 - Buildings: 40% of the EU's energy consumption + 36% of greenhouse gas emissions
 - MS Polymer™: ideal resin for construction/renovation
 - Broad polymer portfolio to boost renovation:

- *Low modulus sealants with enhanced flexibility*
- *Glazing sealants*
- *(Transparent) general purpose sealant/adhesive*
- *High tack adhesives*
- *Flooring adhesives*
- *Repair adhesives*
- *Waterproofing membranes*
- *Solar panel adhesives*
- *Anti-staining sealants*



European Green Deal



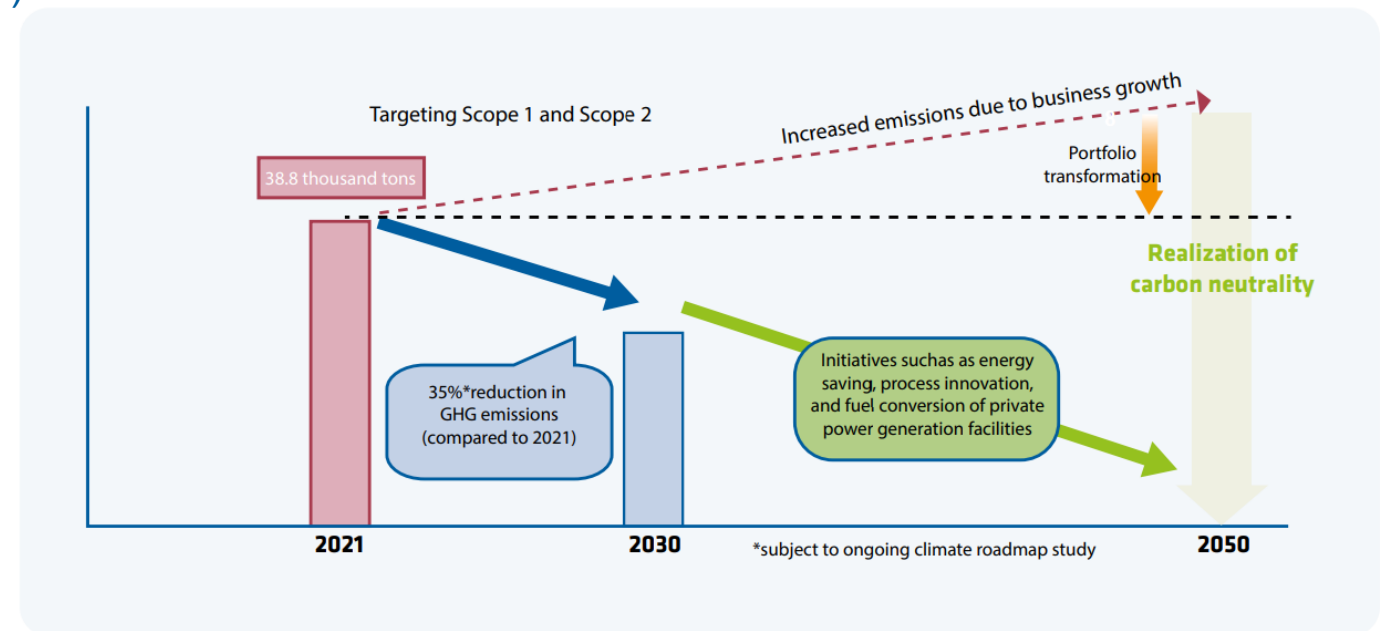
- **Smart Mobility: limit CO₂ emission**
 - Shift from fossil-based engines to electric vehicles
 - Crucial lightweight solutions
 - *Metals replaced by plastics*
 - Broad polymer portfolio to develop:
 - *Plastic adhesives (Acryl-modified MS Polymer™)*
 - *Assembly adhesives (side panel bonding in buses, ...)*
 - *High strength/High elongation adhesives*
 - *Windscreen adhesives*
 - *Thermal interface adhesives (high thermal conductivity)*
 - *Thermal interface gap fillers (no adhesion)*
 - *Battery pack sealants*



European Green Deal

Kaneka Belgium's objectives towards carbon neutrality

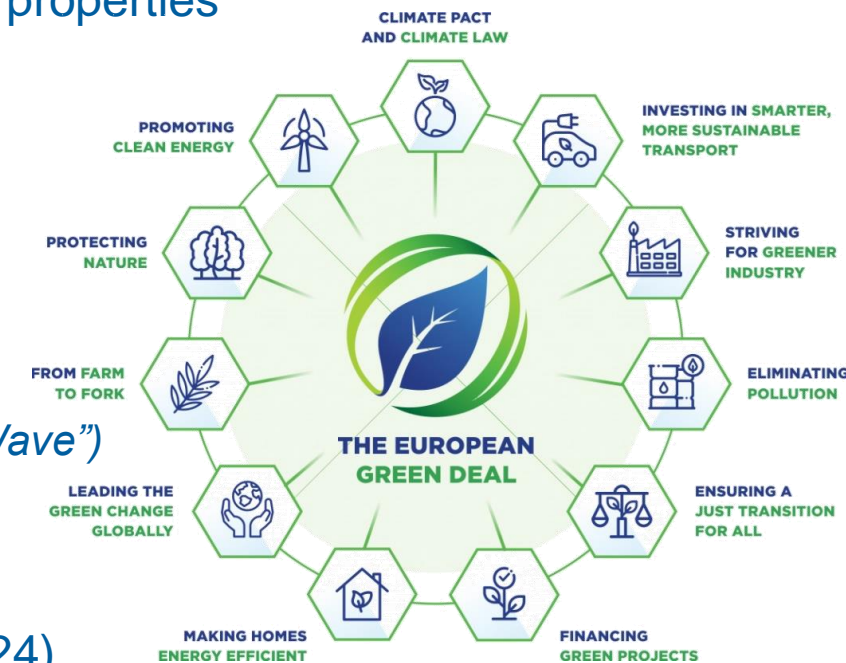
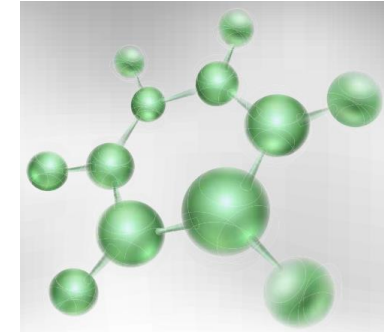
- Energy savings in manufacturing process
- Renewable energy sources (solar + wind)
- Continuous water management
- Reduction carbon footprint supply chain
 - *LNG trucks*
 - *Transport shift from road towards water/rail*
- Development of eco-friendly products
 - *Biodegradable plastics (single-use plastics)*
 - *Fully biobased MS Polymer™ backbones*



Note: Scope 1: Direct emissions from our fuel / process, Scope 2: Indirect emissions from energy of other companies

Summary

- **MS Polymer™ : Solution provider for the European Green Deal**
 - Unique moisture-curing silylated polyether/polyacrylate technology
 - Wide variety of (acryl-modified) MS Polymer™ with various properties
 - Highly flexible sealants and high strength adhesives
 - ***Fits perfectly within the Green Deal concept.***
 - *Eco-friendly and toxic-free resin for sealants/adhesives*
 - *Sustainable products for renovation purposes (“Renovation Wave”)*
 - *Key driver for lightweight and EV mobility challenges*
 - New investment 4th production line MS Polymer™ (2023-2024)



Good partnerships generate great results

Over the years, Kaneka has developed **very positive and long-term relationships** with customers, employees, community stakeholders.

We strongly believe that strong partnerships can generate great results!

Every day, we do our very best to focus on these relationships and we strive for a **first class partnership!**



Thank you for your attention

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