Product Focus

Advanced silicone-based masterbatches and polymer solutions

Performance, flexibility and design freedom

DUPONT™

Omya Performance Polymer Distribution

OMYA

Advanced silicone-based masterbatches and polymer solutions

Performance, flexibility and design freedom

Advanced thermoplastic elastomer and silicone-based technologies delivering flexibility, durability, soft-touch performance, processing efficiency, and design freedom across demanding applications.

The DuPont™ portfolio of advanced thermoplastic elastomers and silicone-based technologies enables manufacturers to create products that are lighter, more durable, more comfortable, and easier to manufacture without compromising performance.

Omya Performance Polymer Distribution provides access to this innovative materials portfolio across Europe, combining local technical expertise with responsive customer support and dependable regional supply. Working closely with DuPont™, we help customers identify material solutions that improve product performance, simplify processing, and support the development of next-generation applications.

Whether the objective is improving soft-touch aesthetics, replacing traditional rubber, enhancing overmolding performance, or incorporating silicone functionality into thermoplastics, DuPont™ elastomer and silicone technologies provide versatile solutions for demanding design and manufacturing challenges.

Portfolio overview

Material family	Brand	Core positioning
Silicone masterbatch	**Multibase™ SiMB**	Silicone-based additive technologies enhancing thermoplastic processing, pigment dispersion, surface performance, anti-squeak properties, durability, and aesthetics
Thermoplastic elastomers	**Multiflex™ SBC**	Flexible styrenic elastomer solutions offering excellent processing, overmolding performance, and attractive aesthetics
	Multiflex™ SIE	Silicone-enhanced elastomer solutions combining mechanical performance, flexibility, resilience, surface quality, and durability
	Multiflex™ TPE	Versatile thermoplastic elastomers combining soft-touch performance, durability, and processing efficiency
	Multiflex™ TPO	Lightweight olefinic elastomers delivering flexibility, impact resistance, weatherability, and thermal performance
Thermoplastic silicone vulcanizates	**TPSiV®**	Premium silicone TPE technology combining soft-touch aesthetics, durability, chemical and UV resistance, and thermoplastic processability

Silicone additives and performance enhancement

Silicone-based masterbatch technologies engineered to improve thermoplastic processing, surface performance, durability, and manufacturing efficiency.

Multibase™ silicone masterbatch (SiMB)

Multibase™ SiMB from DuPont™ is a portfolio of silicone-based masterbatch additives designed to **enhance the processing and performance of thermoplastic materials.** Containing high or ultra-high molecular weight polydimethyl siloxane (UHMW-PDMS) pre-dispersed or reacted in compatible polymer carriers, these easy-to-use pelletized additives enable silicone functionality to be incorporated efficiently into a wide range of polymer compounds.

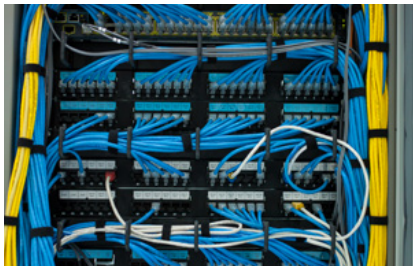
Depending on formulation and application requirements, Multibase™ SiMB can improve flow and mold filling, reduce extruder torque and energy demand, increase throughput, and enhance filler and pigment dispersion. In finished components, the technology can provide benefits including lower friction, improved scratch, abrasion and mar resistance, enhanced surface aesthetics, and a smooth, silky feel.

With carrier systems compatible with materials including polyamides, polycarbonates, polyesters, POM, polyolefins, thermoplastic elastomers, and styrenics, Multibase™ SiMB provides manufacturers with a versatile route to improve both production efficiency and finished-component performance across multiple application areas, including flexible packaging, wire and cable, automotive, industrial and consumer compounds, and recycled materials.

Performance at a glance

Performance area	Multibase™ SiMB capability
Material form	Easy-to-use pelletized silicone masterbatch
Polymer compatibility	PA, PC, polyester, POM, polyolefins, TPEs and styrenics*
Processing flow	Improved flow and mold filling
Extruder performance	Reduced torque and potential for increased throughput
Energy efficiency	Can reduce processing energy demand
Dispersion	Improved dispersion of fillers, pigments and other additives
Surface friction	Lower coefficient of friction and improved lubricity
Surface durability	Improved scratch, abrasion and mar resistance
Surface aesthetics	Smooth, silky surface feel and enhanced appearance
Durability	No exudation or migration in finished parts
Additional functionality	Selected grades support mold release, anti-squeak performance and other application-specific requirements

*Compatibility and performance depend on the specific Multibase™ grade, carrier polymer, formulation and application.



Key benefits

Material performance	Value for manufacturers
Improved processing and flow	Supports smoother extrusion, improved mold filling and more efficient thermoplastic processing
Reduced extruder torque	Can lower processing demands and contribute to reduced energy consumption
Increased throughput	Enables greater production efficiency in suitable formulations and processing conditions
Improved filler and pigment dispersion	Supports more consistent compounds and efficient incorporation of fillers, pigments and other additives
Lower coefficient of friction	Improves sliding and surface performance in moving or contacting components
Scratch, abrasion and mar resistance	Helps maintain surface quality and appearance throughout component service life
Enhanced surface aesthetics	Can provide improved surface quality, lubricity and a smooth, silky feel
Mechanical property enhancement	Selected formulations can support reinforcement and improved physical performance
Broad polymer compatibility	Enables silicone functionality to be incorporated across a wide range of thermoplastic systems
Multi-functional performance	A single additive technology can deliver both processing and finished-component benefits

Processing capability

Multibase™ SiMB additives are supplied in pellet form for straightforward incorporation into thermoplastic compounds using established processing equipment. Depending on the selected grade and polymer system, they can be introduced during compounding or downstream processing to enhance rheology, flow, dispersion, and surface performance.

Multibase™ technologies support extrusion and injection molding applications, with selected processing-aid grades particularly suited to profile, pipe, cable, and film extrusion. By reducing torque, improving flow, and stabilizing processing behavior, Multibase™ can help manufacturers increase throughput, reduce energy demand, and achieve consistent, high-quality finished components.

Versatile thermoplastic elastomers

Versatile thermoplastic elastomer technologies combining flexibility, durability, soft-touch performance, lightweight design, and efficient processing across demanding applications.

Multiflex™ styrene block copolymer (SBC)

Multiflex™ SBC thermoplastic elastomers from DuPont™ provide **excellent flexibility, transparency, and ease of processing while delivering outstanding 2K-overmolding performance and attractive aesthetics.** They are well suited to consumer goods, medical devices, packaging, hand tools, and personal care products where flexibility, appearance, tactile performance, and efficient processing are important.

Multiflex™ silicone-enhanced elastomer (SIE)

Multiflex™ SIE from DuPont™ is a silicone-enhanced thermoplastic elastomer designed to **combine elastomeric flexibility with excellent surface quality, durability, and mechanical performance.** Silicone enhancement provides excellent scratch and abrasion resistance, supporting components where appearance and surface performance must be maintained throughout repeated use.

Available across a wide range of hardness levels, Multiflex™ SIE is suited to automotive, consumer, electronic, and industrial applications requiring flexibility, resilience, durable aesthetics, and high-quality surfaces.

Multiflex™ thermoplastic elastomer (TPE)

Multiflex™ TPE from DuPont™ provides a versatile combination of **flexibility, durability, chemical resistance, and thermoplastic processability.** Designed as an alternative to conventional thermoset rubber in suitable applications, Multiflex™ enables manufacturers to combine rubber-like performance with streamlined processing, design freedom, and recyclability.

With excellent colorability, good resistance to UV and ozone exposure, and resistance to chemicals including alcohols, acids, bases, and detergents, Multiflex™ TPE supports applications across automotive, consumer electronics, industrial products, and other demanding markets.

Multiflex™ thermoplastic polyolefin (TPO)

Multiflex™ TPO from DuPont™ is an olefinic thermoplastic elastomer offering a combination of **flexibility, impact resistance, lightweight performance, and thermal durability.** Optimized for low-temperature performance, Multiflex™ TPO supports demanding applications where components must retain toughness and reliable performance across changing environmental conditions.

With solutions designed for painted surfaces and mold-in-color applications, Multiflex™ TPO is particularly suited to automotive interior and exterior components, as well as industrial and consumer applications requiring durable, lightweight elastomeric performance.

Performance at a glance

Key property	Multiflex™ performance
Hardness range	10 Shore A to 90 Shore A*
Use temperature	-40°C to +120°C*
Density	Low
Weatherability	Good UV and ozone resistance
Colorability	Excellent / easily colorable
Transparency	Transparent solutions available
Chemical resistance	Resistant to alcohols, acids, aqueous solutions, bases, and detergents
Processing	Adapted to most thermoplastic processes
Overmolding	Selected solutions suitable for overmolding applications
Rubber replacement	Potential replacement for thermoset rubber in suitable applications

*Portfolio-level values; individual properties and operating limits depend on the selected Multiflex™ technology and grade.

Key benefits

Material performance	Value for manufacturers
Broad flexibility and hardness range	Enables material selection for applications ranging from very soft components to more rigid elastomeric parts
Soft-touch performance	Supports comfortable, tactile and ergonomic surfaces for user-facing components
Weatherability	Good resistance to UV and ozone supports durable performance in environmentally exposed applications
Low-temperature performance	Selected technologies maintain flexibility and impact performance under demanding cold conditions
Chemical resistance	Supports components exposed to common chemicals including alcohols, acids, bases and detergents
Scratch and abrasion resistance	Silicone-enhanced SIE solutions help maintain surface quality and appearance during repeated use
Color and aesthetic flexibility	Excellent colorability, transparency options and mold-in-color solutions enable greater design freedom
2K-overmolding capability	Selected grades enable soft-touch and functional surfaces to be combined with rigid substrates
Lightweight performance	Low-density elastomer technologies can support component lightweighting
Thermoset rubber replacement	Thermoplastic processing can simplify manufacturing and improve design flexibility in suitable applications

Processing capability

Multiflex™ thermoplastic elastomers are designed for efficient processing using established thermoplastic manufacturing technologies. The portfolio is adapted to a broad range of thermoplastic processes, with selected grades suitable for injection molding, extrusion, and overmolding applications.

Unlike conventional thermoset rubber, thermoplastic processing can eliminate curing stages and support shorter, more streamlined production processes. A broad range of hardness levels, color options, and application-specific formulations enables manufacturers to tailor material selection to component geometry, substrate compatibility, surface requirements, and end-use performance.

Premium silicone thermoplastic elastomers

Advanced thermoplastic silicone vulcanizates combining premium soft-touch aesthetics with exceptional durability, environmental resistance, and efficient thermoplastic processing.

TPSiV® thermoplastic silicone vulcanizates

TPSiV® from DuPont™ is a family of thermoplastic silicone vulcanizates **combining the processing advantages of thermoplastics with the distinctive performance characteristics of silicone rubber.** Designed for applications where tactile quality, aesthetics, and long-term durability are critical, TPSiV® provides a soft, silky surface feel together with excellent flexibility and resilience.

The technology offers excellent resistance to UV exposure, chemicals, stains, scratching, and abrasion, helping components retain their appearance and surface performance throughout repeated use and environmental exposure. TPSiV® is also easily colorable, providing manufacturers with greater aesthetic and design flexibility.

Selected TPSiV® grades can be overmolded onto rigid substrates, enabling soft-touch surfaces and functional features to be integrated into multi-material components. This combination of silicone-like performance and thermoplastic processing makes TPSiV® particularly well suited to wearable electronics, consumer products, automotive interiors, healthcare devices, and other premium applications where comfort, durability, and appearance are important.

Performance at a glance

Key property	TPSiV® performance
Material technology	Thermoplastic silicone vulcanizate
Hardness range	50–80 Shore A*
Surface feel	Soft, smooth and silky
UV resistance	Excellent
Chemical resistance	Excellent
Scratch and abrasion resistance	Excellent
Stain resistance	Excellent
Colorability	Easily colorable
Flexibility	Excellent long-term flexibility and resilience
Overmolding	Selected grades offer adhesion to compatible rigid substrates
Processing	Conventional thermoplastic processing

*Portfolio-level range. Properties vary according to grade and application. Refer to individual technical data sheets for specific performance information.

Key benefits

Material performance	Value for manufacturers
Premium soft-touch feel	Creates smooth, silky and comfortable surfaces for user-facing components
Excellent UV resistance	Helps maintain appearance and performance in applications exposed to sunlight and environmental conditions
Chemical resistance	Supports durable components exposed to chemicals, cleaning agents and other challenging substances
Scratch and abrasion resistance	Helps preserve surface quality and aesthetics throughout repeated handling and use
Stain resistance	Supports cleaner-looking surfaces and long-term aesthetic performance
Long-term flexibility	Maintains elastomeric performance in applications requiring repeated movement and deformation
Excellent colorability	Enables broad aesthetic and product-design flexibility
Overmolding capability	Selected grades enable soft-touch and functional features to be integrated with compatible rigid substrates
Silicone-like performance	Provides desirable silicone characteristics within a thermoplastic processable material
Thermoplastic processability	Supports efficient manufacturing without the curing requirements associated with conventional silicone rubber

Processing capability

TPSiV® combines silicone-like performance with the processing efficiency of a thermoplastic elastomer, enabling components to be manufactured using established thermoplastic processing equipment. The technology is suitable for injection molding and other thermoplastic processing methods, supporting efficient production of complex, flexible, and high-quality components.

Selected TPSiV® grades are designed for overmolding and multi-material applications, enabling soft-touch surfaces to be combined with compatible rigid substrates. This provides manufacturers with greater freedom to integrate tactile, protective, and aesthetic functionality directly into component designs while reducing the need for additional finishing or assembly operations.

Where DuPont™ elastomer and silicone technologies perform

DuPont™ elastomer and silicone technologies combine flexibility, durability, surface performance, processing efficiency, and design freedom to address a broad range of manufacturing and product design requirements.

With solutions spanning silicone masterbatches, thermoplastic elastomers, thermoplastic polyolefins, and thermoplastic silicone vulcanizates, the portfolio supports applications where soft-touch performance, overmolding, lightweighting, weatherability, surface durability, and efficient processing are important. DuPont™ technologies serve applications across automotive and mobility, electrical and electronics, consumer goods, medical and healthcare, industrial, building and construction, and packaging markets.

Industry	Typical applications
Automotive and mobility	Interior trim, instrument panels, soft-touch surfaces, airbag covers, seat belt components, grips, seals, weather seals, overmolded components, charging equipment, exterior components, and more.
Electrical and electronics	Consumer electronics, electrical housings, connectors, switches, control units, battery systems, telecommunications equipment, soft-touch components, and more.
Consumer goods	Wearable devices, kitchenware, sporting goods, personal care products, power tools, toys, luggage, ergonomic grips, premium consumer products, and more.
Medical and healthcare	Medical devices, wearable healthcare products, tubing, diagnostic equipment, pharmaceutical packaging, seals, overmolded components, and more.*
Industrial	Industrial equipment, seals, gaskets, rollers, gears, bearings, conveyor systems, protective components, wire and cable, connectors, and more.
Building and construction	Profiles, seals, flexible construction products, weather-resistant components, cable systems, infrastructure components, and more.
Packaging	Flexible and rigid packaging components, closures, seals, soft-touch features, surface-modified polymer components, and other applications requiring processing or surface-performance enhancement.

*Subject to selection of an appropriate grade and applicable regulatory requirements.

Why work with Omya Performance Polymer Distribution?

Customers sourcing DuPont™ materials through Omya Performance Polymer Distribution benefit from:

- A comprehensive portfolio of elastomer and silicone technologies
- Local commercial, technical and application support
- Material selection and grade optimization aligned with performance, processing and regulatory requirements
- Processing guidance and troubleshooting support
- Reliable regional logistics and multi-country coordination, subject to product availability
- Close collaboration with DuPont™ technical teams from concept through production

Let’s develop your next application together

The advanced silicone-based masterbatches and polymer solutions portfolio from **DuPont™** enables manufacturers to achieve reliable performance, efficient processing, and scalable innovation across a wide range of applications.

Whether you are optimizing an existing material selection or developing a new application, Omya Performance Polymer Distribution works closely with you to identify the right solution – supporting you from initial concept through to full-scale production.

Contact Omya Performance Polymer Distribution

To discuss your application, material requirements, or grade selection, contact your local Omya Performance Polymer Distribution representative or visit: www.omya.com

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