

Challenging
the **Senses**
through Matt
and Ultramatt
Coatings

The **Evolution**
of Optical
and Haptics
Solutions.



Senses

Evolution

The widest and ever-growing palette of Haptics and Optical Coatings Solutions across the world.

Our boundary,
our beginning.

Skin is our first **connection**, the edge through which we **feel** the world. Strong, flexible, self-healing: it **protects** us. Through it, we **communicate, feel,** and **express emotion**. We touch, we charm, we leave our mark.

Ultra matt finishes, soft textures, natural looks, and multicolor tones captivate our senses, but performance is essential: chemical resistance, scratch resistance, texture, sound damping, anti-vibration, and no burnishing.

At the crossroad of the most immersive human experience and the highest industrial standards, rises the next step in Lamberti's scientific journey: **the evolution of surface science.**

Where form and function meet artistry and protection, through the unmatched variety of Haptics and Optical Coatings Solutions across the world.

Science of surfaces

Where Experience Meets Excellence

Coatings have a remarkable ability to elevate the inherent qualities of materials, transforming them into something extraordinary. Whether it's enhancing the natural luster of wood, preserving the crisp texture of paper, or adding a matte sheen to plastic, **coatings magnify the unique characteristics that make each material special.**

By carefully selecting and applying coatings, manufacturers can not only protect surfaces from wear and tear but

also enhance their aesthetic appeal and tactile sensation.

This attention to detail is crucial in the customer experience, as it ensures that every interaction with a product is a sensory delight.

Whether it's the velvet glide of a coated surface or the vibrant colors that pop under the light, **coatings play a vital role in shaping perceptions and fostering a deeper connection between consumers and the products they love.**

Haptics
Optical
Mechanical
Chemical
Thermal
Acoustic
Stain
Ageing

Senses in purpose

No matter the substrate, the top coat will always finalize the result of a **delicate and complex** surface treatment **alchemy**, providing the article with the ultimate functional properties.

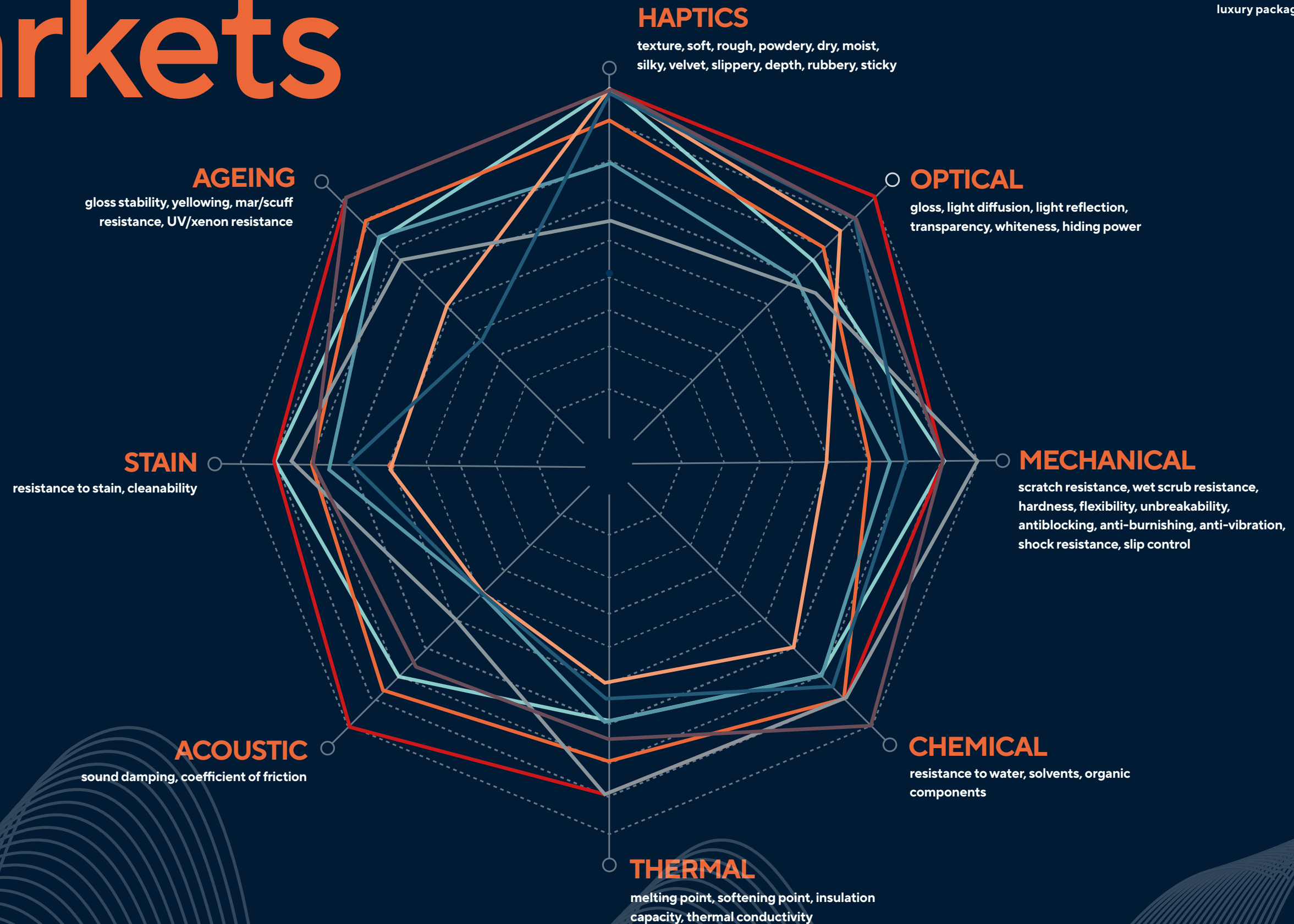
The **final layer** of a coating is your best ally in providing a full palette of Touch, Optical and Haptics properties. Lamberti offers solutions for every need, whether are we talking about **wood, paper, natural leather, synthetic materials, textile, plastics, cement, concrete and gypsum, or metal.**

Nowadays, also in industrial applications customers increasingly seek **products that engage their senses**, while ensuring all the necessary technical properties to meet stringent testing requirements.

We observe it occurring and growing in **every market** where we operate : from **flexible packaging, automotive, luxury packaging and specialty papers**, to **architectural paints and wood coating**, but also **textile finishing and printing, metal and coil coating.**

Sense the markets

- automotive
- metal & coil coating
- wood coating
- leather finishing & synthetic materials
- architectural paints
- textile printing & finishing
- luxury packaging & specialty paper
- flexible packaging





Polyurethane dispersions

Esacote® series are polyurethane dispersions (PUD) obtained through proprietary processes, and accurately designed to bring **the whole palette of haptics and gloss properties**, in a liquid form with a dry content ranging from 28 to 38%. It is an ever-growing family and one of our core technologies for matt and ultra matt solutions.

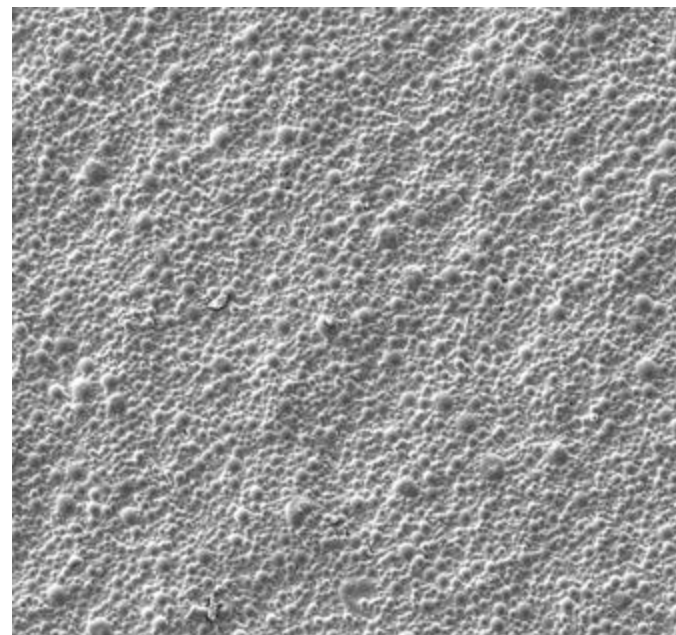
Esacote® products are usable **alone or in combination with polymeric matting agents** like Decosphaera® or Spheromers® or more standard matting agents like silica, titanium dioxide or waxes, in order to adjust haptics and gloss to the desired target.

They can be used **1K or crosslinked** with all the standard crosslinkers.

By **addition of non-matt Esacote® or Rolflex® products**, parameters like

hardness, mechanical and chemical resistance, adhesion and weathering can be enhanced, maintaining the haptics and gloss properties unchanged.

Some Esacote® are ready-to-use matting solutions that are perfectly suitable for automotive market.

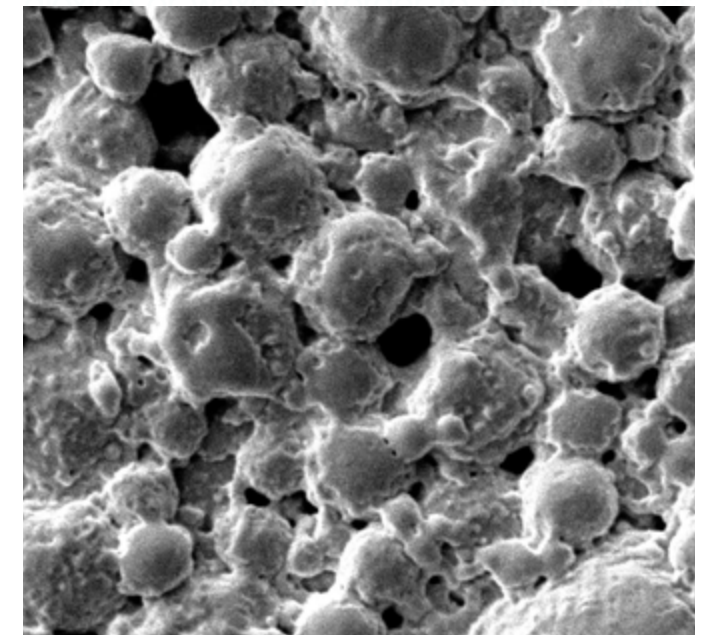


Polyurethane dispersions

In the manner of Esacote®, Rolflex® portfolio are aqueous polyurethane dispersions (PUD) ranging from matt to ultra matt, allowing their use upon a wide variety of substrates **from the most elastic to the hardest one**. They are the meticulous result of perfect choice in composition and engineered proprietary processes, that are particularly suitable for textile and leather industries.

Rolflex® products are usable **alone or in combination with polymeric matting agents** like Decosphaera® or Spheromers® or more standard matting agents like silica, titanium dioxide or waxes, in order to adjust haptics and gloss to the desired target. They can be used **1K or crosslinked** through the addition of most standard crosslinkers.

By **addition of non-matt Esacote® or Rolflex® products**, parameters like stain, mechanical and chemical resistance, adhesion and weathering can be enhanced, maintaining the haptics and gloss properties unchanged.



Decosphaera®

Spherical particles of polyurethane

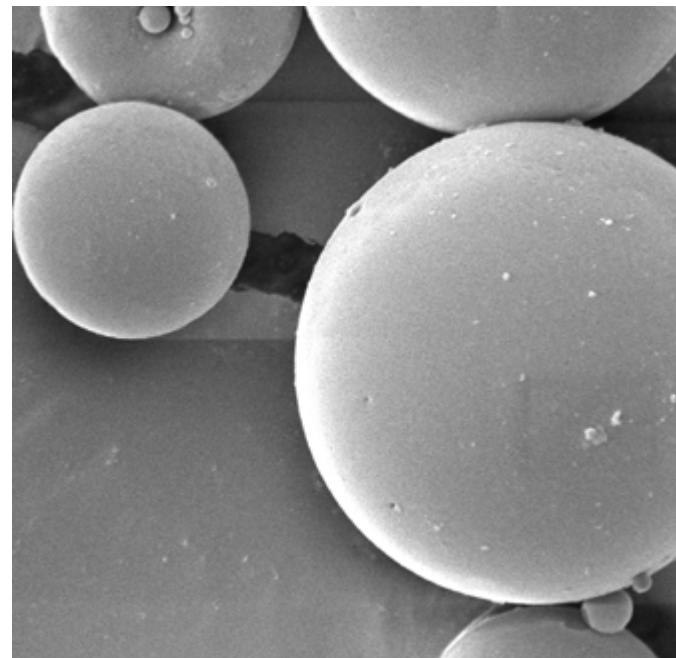
Decosphaera® are spherical particles of crosslinked aliphatic polyurethane, obtained through a proprietary process that conscientiously confers to Decosphaera® their shape and properties. Decosphaera® beads are available from 3 to 50 microns, in an **easy-to-incorporate powder form**, both in transparent or colored versions.

Decosphaera® are **versatile additives** suitable for a wide range of applications, providing a reliable and lasting matting effect while also offering the typical properties of solid polymeric beads, particularly in terms of **mechanical, optical and acoustic characteristics**.

Decosphaera® and Spheromers® polymer beads are top quality additives that enable to formulate deep matte, soft touch or textured surfaces with a natural look, without compromising **colour acceptance** or **burnish, wet scrub,**

abrasion, or scratch resistance.

They are compatible with all Esacote® or Rolflex® products, but also with most of the standard film formers in use in the coating market. Decosphaera® products are suitable for both waterborne and solvent-borne systems and are particularly reliable performers in 100% UV radiation-curing systems.



Spheromers®

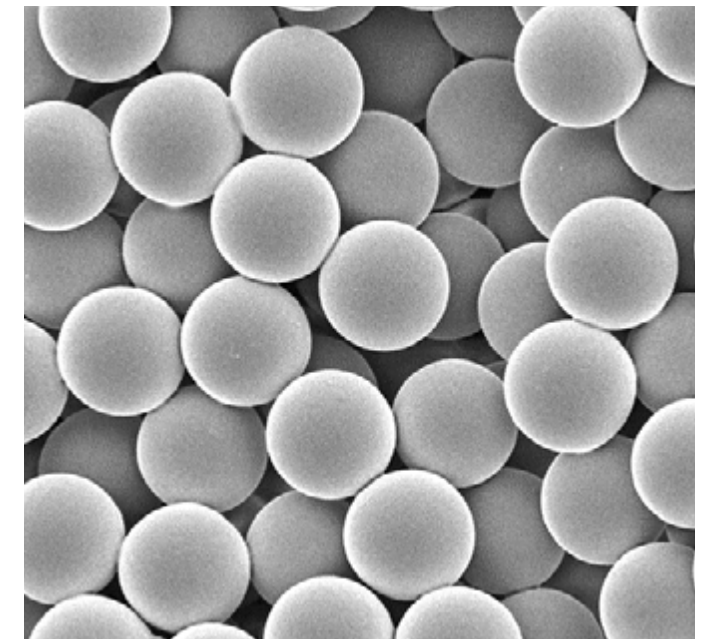
Spherical and monosized acrylic particles

Spheromers® are made of crosslinked polymethylmethacrylate (PMMA) through the application at industrial scale of the unique and patented Ugelstad technology, achieving beads of uniform shape and size. The highly defined and consistent beads characteristics are featured in a variety of applications and new ones are regularly discovered.

Due to the chemical nature, Spheromers® beads are characterized by **an excellent transparency, a good surface hardness, temperature resistance and light stability**, making them attractive as functional additives in several applications within coatings but also in plastics industry. The combination of chemical composition and perfect spherical shape ensures **tough beads** that remain unchanged during normal processing conditions.

Decosphaera® and Spheromers® polymer beads are top quality additives that enable

to formulate deep matte, soft touch or textured surfaces without compromising **colour acceptance or burnish, wet scrub, abrasion, or scratch resistance.** They are compatible with all Esacote® or Rolflex® products, but also with most of the standard film formers in use in the coating market. Spheromers® products are suitable for both waterborne and solvent-borne systems



Decosphaera® HAP

Spherical particles of calcium phosphate

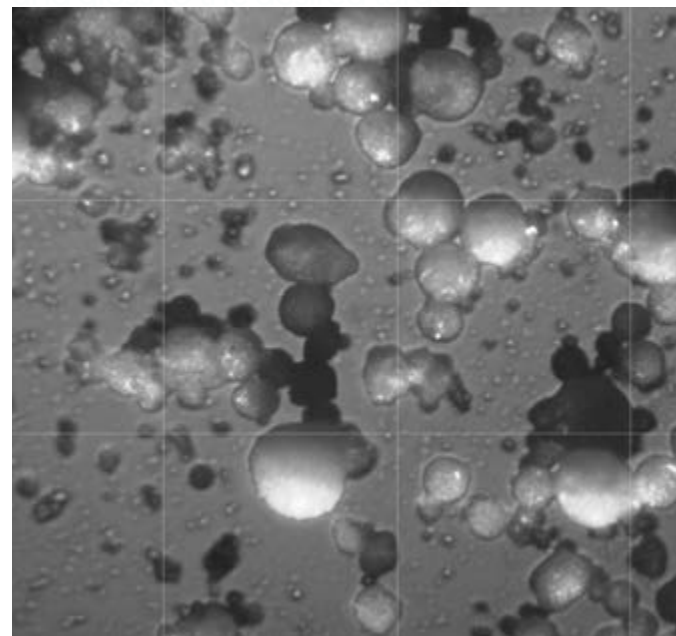
Decosphaera® HAP is made of hydroxyapatite, that is a natural form of calcium phosphate. This is an inorganic material, thus to be considered **microplastic-free**, obtained through a synthesis process using only inorganic reactants. They are spherical beads of average dimension 30 microns, in powder form, that results easy to incorporate in liquid formulations.

Decosphaera® HAP is particularly suitable for architectural paints where it confers **low gloss at different angles, a high wet scrub and dry-burnishing resistance**. Decosphaera® HAP is also characterized by a good whiteness and pigment compatibility.

Decosphaera® HAP is the highest in range for ageing and thermal

resistance, due to its **inorganic nature**. HAP is the main component of teeth and bones, characterized by an intrinsic **biocompatibility** and **osteoconductivity**.

particles or waves in order to adjust haptics



Adimatt

Aqueous compounds of polyurethane particles

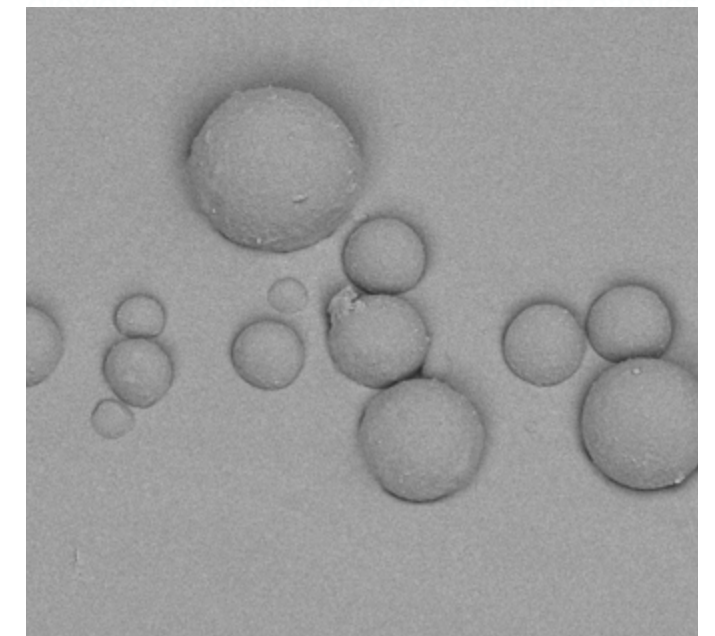
Adimatt are aqueous compounds containing our polyurethane beads, artfully formulated to reach **the best compromise** between technical performance and facility of use.

They are perfectly adequate wherever the use of fine powders is not granted, or when **the preference is to handle liquids**. Different grades are available, particle size and chemistry wise.

Adimatt products provide a reliable and lasting matting effect while also offering the typical properties of solid polymeric beads, particularly in terms of **mechanical, optical and acoustic characteristics**.

They can be used alone or in combination with other matting agents to reach

the desired properties in terms of touch, optical and haptics, and they are normally used in combination with non-matt Esacote® or Rolflex® film formers as well.



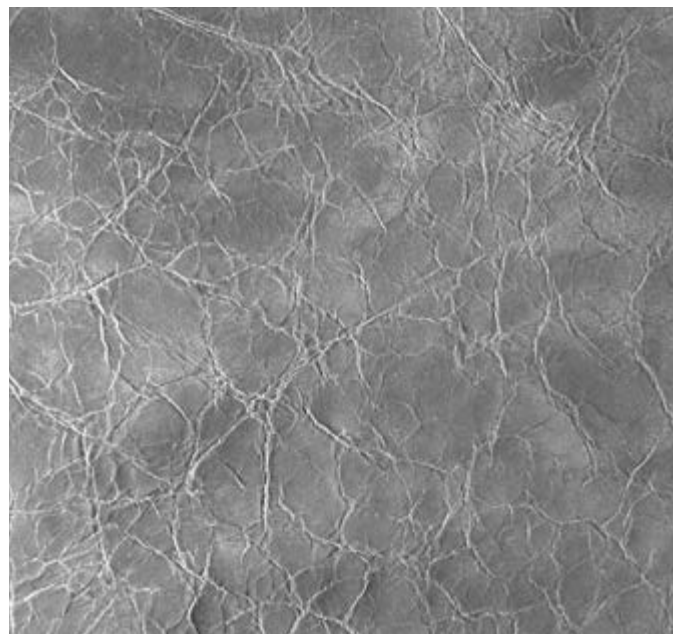


Ready-to-use matting compounds

Nova solutions are aqueous ready-to-use compounds developed to fit every need **from satin, to matt and ultra matt coatings**, especially for **soft and elastic** substrates.

They take advantage of the whole palette of technologies and compounding expertise in Lamberti to provide customers with matt solutions that ultimate the seek for an **immediately applicable coating**.

They are commonly used through crosslinking with the most standard crosslinkers, to become a perfect topcoat that fits with the objectives of very demanding markets as **genuine leather** can be.

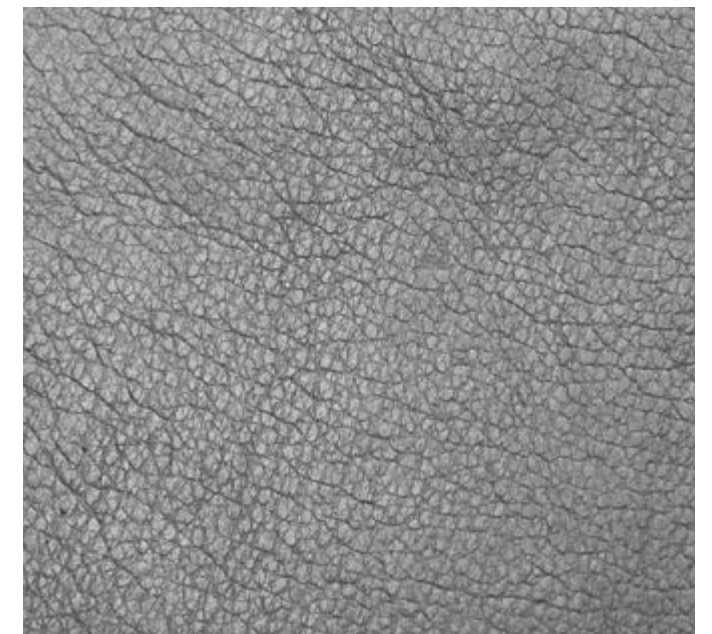


Aqueous matting additives

Lampur solutions are the **most varied family** of aqueous compounds in our product range, and fully leverage our knowledge in the field of matt and haptics coatings.

They are **matting additives** suitable for topcoat formulations on a very wide range of substrates, whose viscosity and gloss level can be adjusted by dilution with non-matt Esacote® and Rolflex®, or most of the standard film formers on the market, to better suit the method of application on the desired substrate.

As all our aqueous compounds, Lampur products can be crosslinked through the addition of most standard crosslinkers.



At a glance

Market/ Product family	Esacote®	Rolflex®	Decosphæra®	Decosphæra® HAP	Spheromers®	Adimatt	Nova®	Lampour®
Automotive	::	.	::		::	::	.	
Metal & coil coating	.		.		::	.		
Wood coating	::		::	.	::	::		
Leather finishing	.	::	::		::	::	::	::
Synthetic materials	::	::	::		.	::	.	
Industrial coating	::		.			.		
Architectural paints	.		.	::	::	::		
Textile printing & finishing	.	::
Luxury packaging	::	
Specialty papers	::	
Flexible packaging	::		.		.	.		

most recommended
suitable
to be deepen

For any inquiry and assistance in selecting the right product for your application, please contact our reference persons at coatings@lamberti.com or visit our website at www.surface-treatment.lamberti.com.



surface.lamberti.com

polymerbeads.lamberti.com