



BIO-BASED PORTFOLIO PRODUCTS

SUSTAINABILITY VISION

Novotex is committed to Sustainability through two main objectives:

- Bio-based materials: polyols and polyurethanes based on renewable raw materials to reduce the impact on CO₂ footprint.
- Recycling: polyurethanes that can be physically or chemically recycled.

MAKING THE TRANSITION TO BIO-BASED PRODUCTS

With more than 50 years of experience and know-how in polyurethane resins for the textile industry, **Novotex, which is part of the Coim Group**, is now offering a new bio-based range of products:

- for Fashion, Upholstery, Automotive and other Technical materials markets;
- that contains **between 50-80% renewable source materials**.

THE BIO-BASED SUSTAINABLE WAY

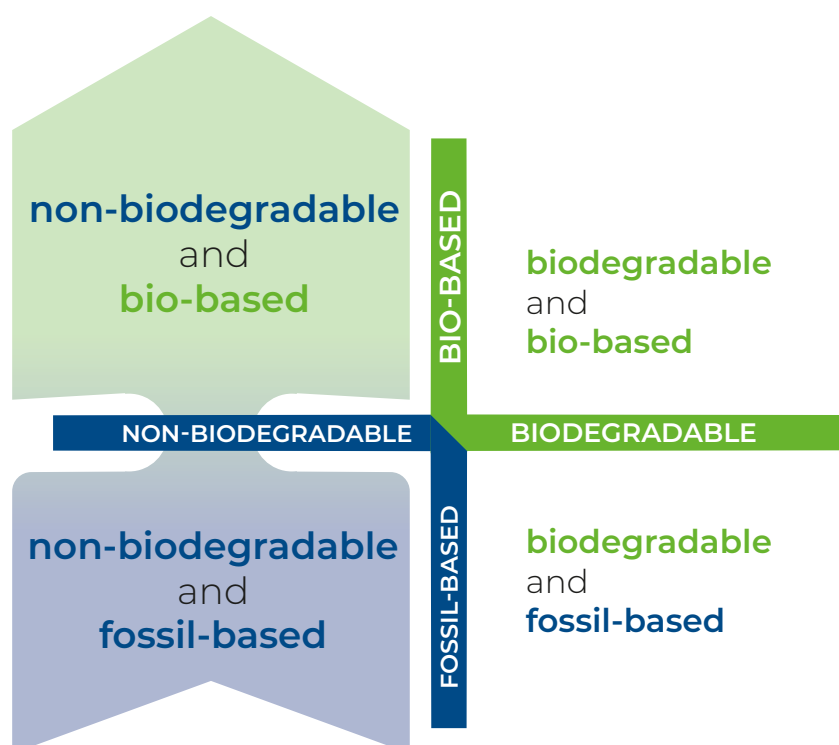
Biodegradable materials: useful for disposable articles.

Non-biodegradable materials: useful for durable articles.

The Textile Coated Industry needs durable articles.

Advantages of transition from fossil to bio-based materials:

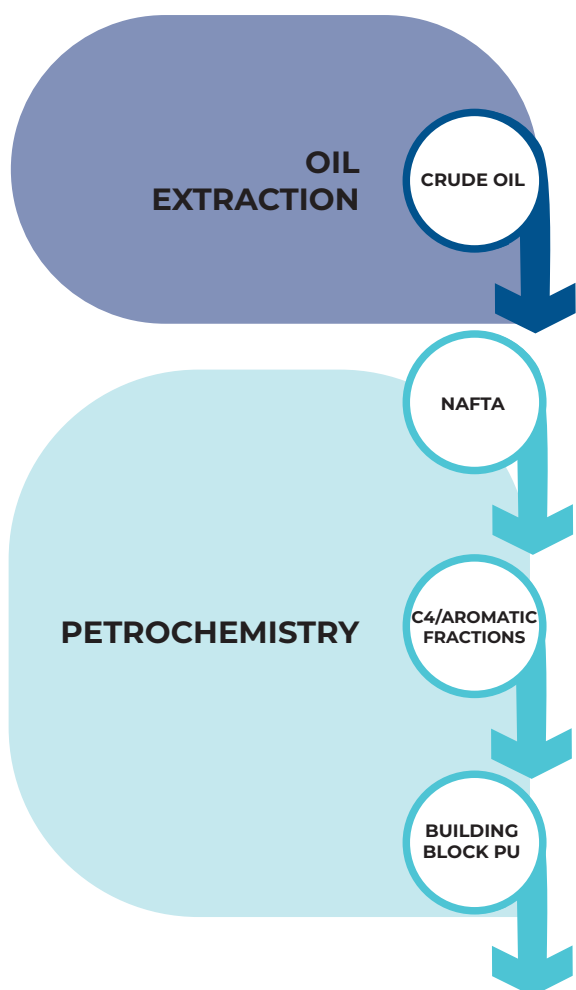
- Better CO₂ footprint
- Durable articles
- Normal handling of chemicals (drop-in)



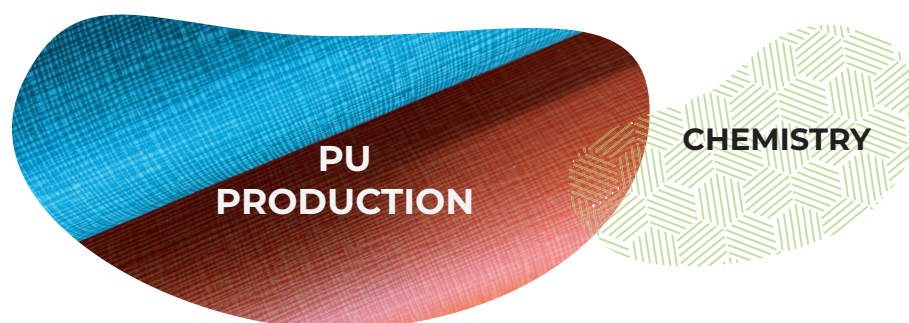
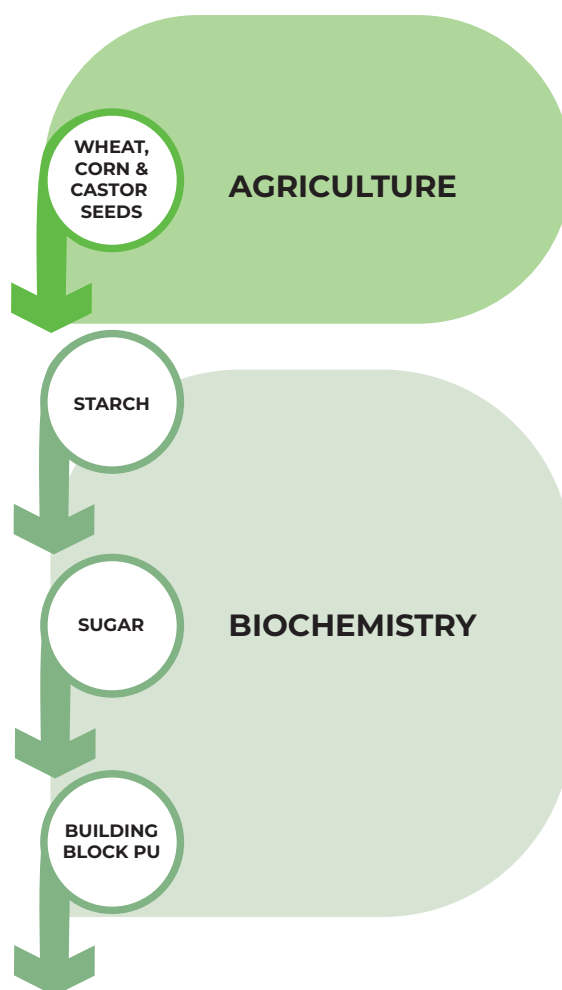
**WE ARE “GREENING”
OUR CHEMISTRY
WHEREVER AND
WHENEVER POSSIBLE.
THIS IS JUST THE
BEGINNING OF
NOVOTEX WAY.**

**COMPARISON BETWEEN TRADITIONAL
FOSSIL-BASED ROUTE AND NEW BIO-BASED ONE**

**FOSSIL-BASED
ROUTE**



**BIO-BASED
ROUTE**





BIO-BASED SOURCES: ORIGIN AND PROCESSING

Our renewable raw materials come only from vegetable sources such as wheat, corn, castor seeds and exceeding crops residues.

Primary crops are located in responsibly managed geographical areas (Europe, North America, some areas of India). This means that the chosen lands/soils are not at risk of deforestation.

They are controlled responsibly with care given to respecting harvesting techniques as well as the communities involved in such operations.

Palm oil crops are excluded from the vegetable sources we use.

Removing only the exceeding crops residues contributes to guaranteeing an adequate warming of the soil and thus improving seed germination. Such balanced approach provides an array of benefits to the soil.

The crops undergo a fermentation process with biological yeasts followed by a purification stage. They are then ready to enter our polymerization system.

RENEWABLE BIO-BASED MATERIALS' CERTIFICATIONS

14C Analysis (Carbon-14 dating): defines the content of renewable raw materials. It is available within 2-3 weeks from the request date on all developed products, experimental samples included.

LCA (Life Cycle Assessment): defines the positive impact of the product on the environment. It certifies the production process after the first industrial productions and is available in 6-8 months from the request date.



NOVOTEX BIO-BASED PRODUCTS' RANGE

Bio-based for Coating

- Larithane **BBS** aromatic skins
- Larithane **BBA** aromatic adhesives
- Larithane **BBL** aliphatics

Bio-based for Coagulation

- Larithane **BBC**

Bio-based High Solid System

- Larithane **BBH**

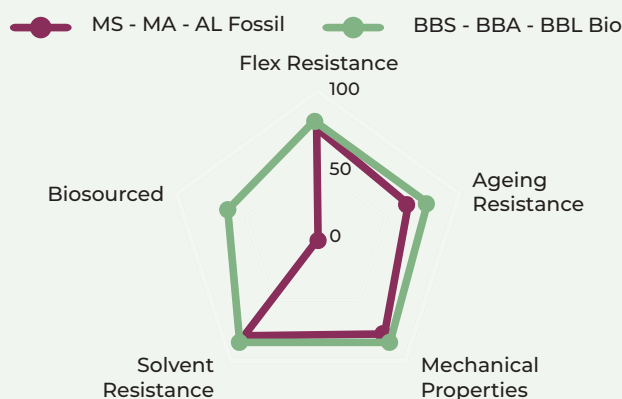
Their nature:

- PES-based grades for both coating and coagulation technologies
- PE-based grades for coating and for High Solid System

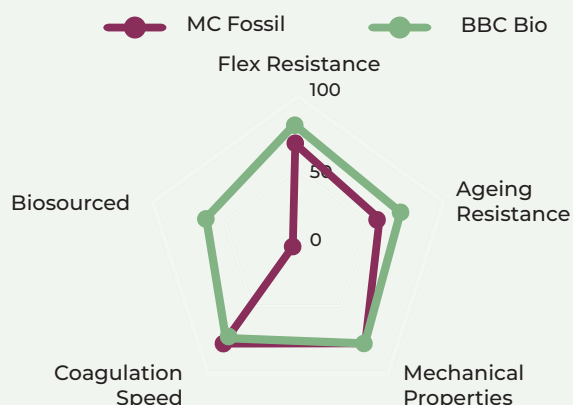
The advantage of these New Generation products is to maintain the same chemical characteristics as those that are fossil-based while using the same application methods.

The technical performances of Novotex bio-based products are equal to, or in some cases better than, those that are fossil based (see charts).

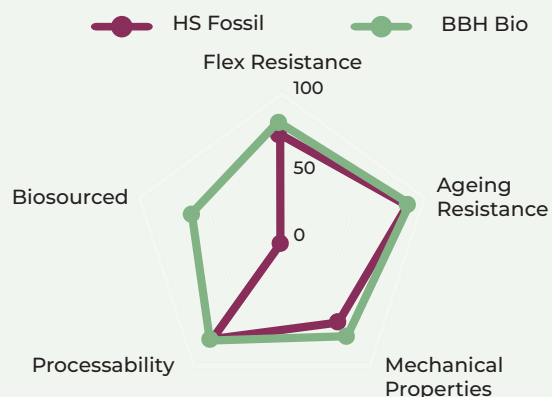
BBS - BBA - BBL SERIES



BBC SERIES



BBH SERIES





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