Promyde®
POLYAMIDE 6 & 66

# POLYAMIDE 6 & COPOLYAMIDES FOR PACKAGING & FILM

NUREL
ENGINEERING POLYMERS


# 50 YEARS OF **EXPERTISE** IN **ADVANCED MATERIALS**

- SYNTHETIC FIBERS
- **ENGINEERING POLYMERS**
  - **PA6**, PA66, PPA, **PP**, PBT, PET & **COPOLYAMIDES**
  - COMPOSTABLE, BIOBASED, & BIODEGRADABLE MATERIALS
  - ADVANCED BARRIER MATERIALS FOR PACKAGING
  - CERTIFIED RECYCLED ENGINEERING COMPOUNDS
- BIOPOLYMERS
- INJECTION SOLUTIONS

With over 50 years of polymerization expertise, NUREL is a trusted reference in polyamides for film applications. Our **in-house polymerization**, **compounding** and **advanced R&D center** deliver tailor-made solutions for the most demanding packaging challenges.

Pilot facilities for **cast** and **blown extrusion**, **thermoforming** and **7-layer coextrusion** turn innovation into industrial reality, ensuring **consistent quality, reliability and a fast response** to customer needs.

**Sustainability** is at the core of our developments. Alongside a wide range of **PA6, PA6/66** and other **copolyamides**, we offer **biobased, biocircular** and **recyclable solutions**, as well as **advanced barrier polymers** for shelf-life extension, under the ENOXITE® brand.

The **PROMYDE® portfolio** is designed to deliver **high transparency**, **mechanical strength** and **barrier performance**, supporting converters and brand owners in achieving both **market performance** and **environmental goals.**

## OUR R&D CENTER FOR NEW ADVANCED MATERIALS

At NUREL, we operate a **state-of-the-art Innovation Center** fully equipped for the development of **advanced packaging materials**. This cutting-edge facility enables us to accelerate innovation and deliver **high-performance, high-quality solutions** tailored to the needs of the packaging industry.

### EQUIPMENT

PILOT **POLYMERIZATION** PLANT

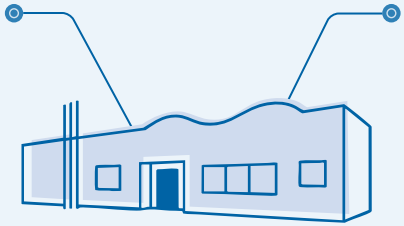
**2 COMPOUNDING EXTRUDERS** PILOT SCALE

**2 MONOLAYER BLOWN EXTRUDER**

**CAST & THERMOFORMING** PILOT LINE

**BLOWN 7 LAYERS COEXTRUDER**

**INJECTION MOULDING** LINE



### MATERIAL CHARACTERIZATION

**MECHANICAL**: STRESS AT BREAK, TEAR & PUNCTURE RESISTANCE, ETC

**OPTICAL:** HAZE & COLOR

**PERMEABILITY:** WVTR & OTR

**THERMAL:** DSC, AUTOCLAVE

**CHEMICAL:** HPLC, FTIR

# SUSTAINABILITY APPROACH

## SUSTAINABLE DEVELOPMENT

NUREL holds **ISO-14001 and ISO-50001** certifications, reflecting our commitment to eco-friendly practices. We focus on **minimizing waste**, **conserving resources** and **improving energy efficiency** in our operations.

## LIFE CYCLE ANALYSIS

We assess the **cradle-to-gate impacts** of our products through LCAs, enabling comparison of environmental performance. We conduct **LCAs with SimaPro software**.

## AVAILABLE CERTIFICATIONS

NUREL holds the **ISCC Plus certification** for its production processes. This guarantees the **sustainable origin of our products** and reflects our commitment to the circular economy.

## RENEWABLE ENERGY

NUREL's photovoltaic plant, one of the largest in Europe with over **28,000 panels**, generates **16,000 MWh** annually and **prevents the emission of 11,000 tons of $CO_2$** each year.

## BIOBASED & BIOCIRCULAR

We now offer a full range of **100% biosourced PA materials** with **ISCC Plus certification**, using bio-origing monomers from cooking oils and other biowaste sources. We also provide PA materials with **50% biobased content**.

At NUREL, we operate with **100% renewable energy**, **30%** of which comes from our own **self-production**. **SGS has certified** that **all the energy used in our production center comes from renewable sources**, avoiding the **emission of 10,991,760 kg of $CO_2$** into the atmosphere.

## SUSTAINABLE ENERGY MILESTONES

**28,310**
SOLAR PANELS
Over an area of 93,000 m²

**16,560**
MWH
Produced per year

**11.85**
MWP
Total installed capacity

**10**
MWH
Energy storage

**11,000**
TONNES
Of $CO_2$ saved

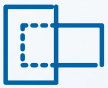
**TOTAL INDEPENDENCE**
From conventional electricity sources


Promyde®
POLYAMIDE 6 & 66

# TECHNICAL PACKAGING SOLUTIONS

DEEP THERMOFORMING & HIGH PERFORMANCE

ENHANCED PUNCTURE AND TEAR RESISTANCE



HIGH TRANSPARENCY

REDUCED CURLING PROPERTIES

BIOBASED SOLUTIONS

THERMAL RESISTANCE SOLUTIONS

IMPROVED BARRIER

FOOD WASTE REDUCTION

RECYCLABILITY AND BIODEGRADABILITY

**OPTIMIZING PERFORMANCE** STARTS WITH **THE RIGHT MATERIAL CHOICE**

## HIGH VISCOSITY GRADES FOR PACKAGING & FILM

# PROMYDE® PA6

### EXPERTISE IN POLYMERIZATION

NUREL's long-term experience in polymerization processes and polymer modifications have converged to provide a wide portfolio of extrusion grades.

### PROMYDE PA6 FOR FILM EXTRUSION

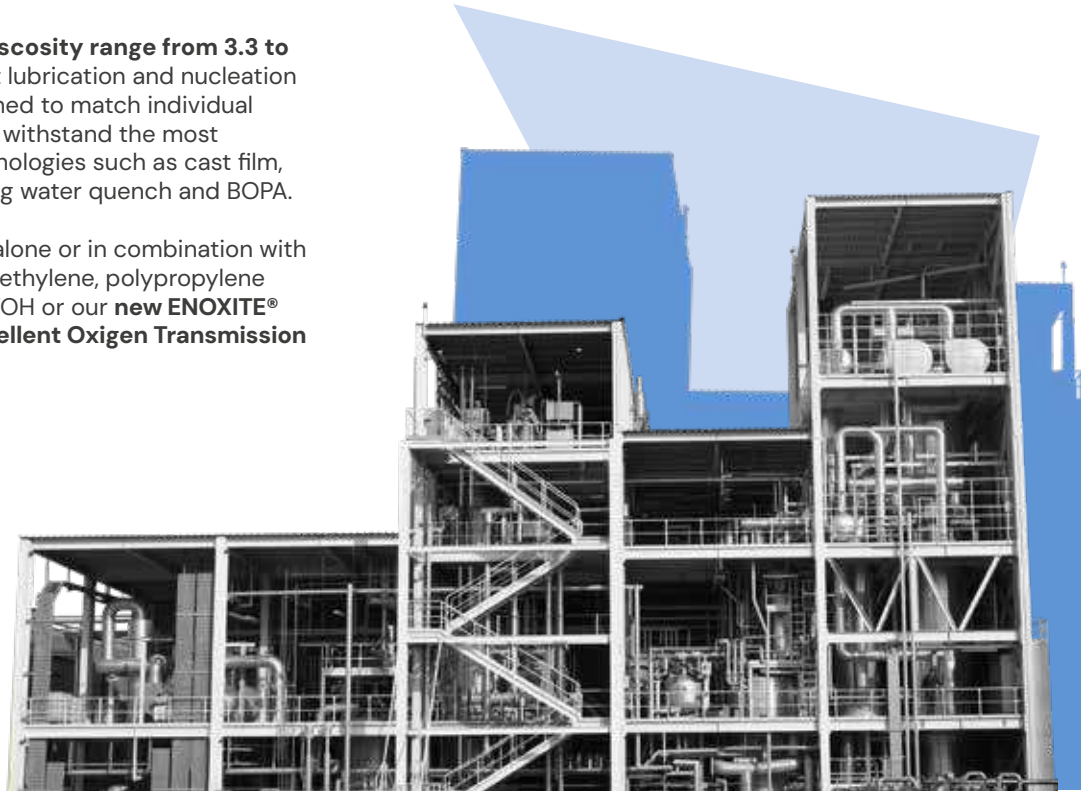
PROMYDE PA6 provides excellent gas, flavour and aroma barrier properties, as well as **high mechanical and excellent thermoforming functionalities**.

PROMYDE® offers a broad **viscosity range from 3.3 to 4.0**, combined with different lubrication and nucleation packages, specifically designed to match individual packaging structures and to withstand the most demanding processing technologies such as cast film, blown film extrusion including water quench and BOPA.

PROMYDE can be extruded alone or in combination with other polymers such as polyethylene, polypropylene or barrier agents, such as EVOH or our **new ENOXITE® BARRIER solutions with excellent Oxigen Transmission Rate values.**

### POLYAMIDE 6 RECYCLABILITY

Polyamide 6 is **recyclable within coextruded polyethylene (PE)/PA6** multilayer film structures through the PE film recycling stream, as verified by Institute cyclos-HTP GmbH. Tests conducted under practice-relevant conditions confirmed **recyclability for packaging containing up to 30% PA**.



ENHANCED FLEXIBITY AND EASY PROCESSING

# PROMYDE® BF36SC

**PA6 PROMYDE® BF36SC** is the latest addition to our high-performance polyamide range. BF36SC has been developed for **challenging applications**, where standard PA6 does not meet the required levels of **processability**, **mechanical strength, and optical performance.**

This new grade delivers enhanced processability in both **CAST and BLOWN extrusion**, offering **exceptional flexibility**. PROMYDE® BF36SC is ideal for **sausage casings and vacuum bags**, providing higher performance, flexibility, and processability compared to standard PA6 grades.

## ADVANTAGES COMPARED TO PA6

- Higher tear resistance.
- Better transparency.
- Improved puncture resistance.
- Improved processability and stretchability.

## AVAILABLE GRADES

**PROMYDE BF36SC L:** Lubricated. Reference material for blown film and three-bubble technology.

**PROMYDE BF36SC LN:** Lubricated and nucleated. Suitable for cast film, blown film, and extrusion lamination.

## APPLICATIONS

**PROMYDE® BF36SC** is ideal for food casings & vacuum bags, offering **superior performance**, **flexibility** and **enhanced processability** compared to standard PA6.

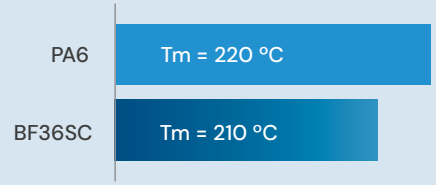
VACCUM BAGS

FOOD CASING

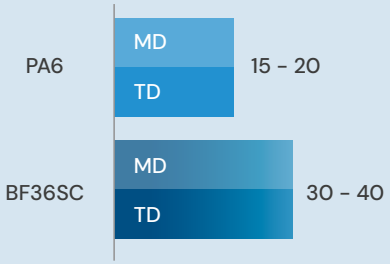
## PROMYDE® BF36SC MAIN PROPERTIES

- **Lower melting point:** (210 °C vs. 220 °C), facilitating easier processing.
- **Slow crystallization behaviour:** resulting in excellent transparency and conformability.

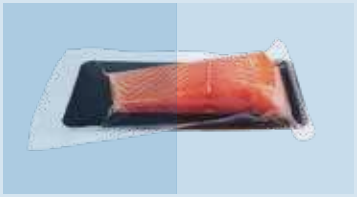
### MELTING POINT




### TEAR RESISTANCE (N/mm)




### TRANSPARENCY



PA6 BF36SC

PREMIUM COPOLYAMIDE GRADE

# PROMYDE® BF940: LOW CURLING & TRANSPARENCY

**PROMYDE® BF940** is a copolyamide with **low crystallization speed**, which prevents curling issues, making them the perfect solution for **asymmetrical structures**.

**BF940** also delivers **higher transparency** than conventional polyamides available on the market, **even after pasteurization and sterilization processes**.

This property, combined with the natural gloss of polyamide, makes it the ideal material for **visually attractive** packaging.

PROMYDE® BF940 is the **benchmark copolyamide**, a high-performing **alternative to PA 6/66**.
By eliminating curling, they stand out as the ultimate solution for **asymmetric structures**.

## ADVANTAGES

- Suitable for **pasteurization and retort** while maintaining excellent transparency and gloss.
- **Higher puncture resistance** at break than PA 6/66 (>30%).
- **Higher oxygen barrier** than PA 6/66 at high RH**.**
- Transparency.

## AVAILABLE GRADES

Offered in two viscosity grades, with optimized lubrication and nucleation levels to meet diverse processing and packaging needs: **PROMYDE® BF940** & **PROMYDE® BF933**.

## APPLICATIONS

Ideal for **lids**, **thermoformed trays**, **vacuum bags**, as well as **skin** and **shrink** packaging.

# COPOLYAMIDE FOR ASYMMETRICAL MULTILAYER FILM

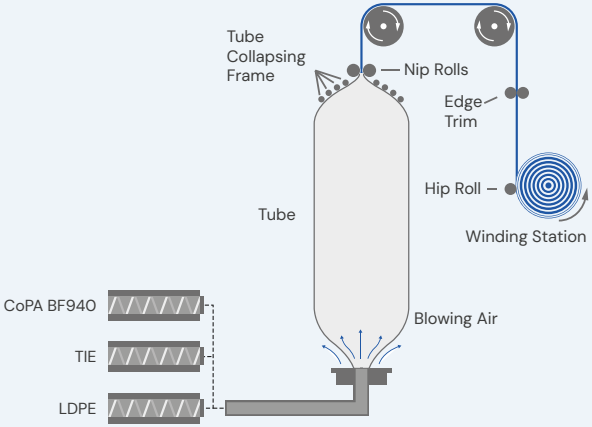
## ELIMINATING CURLING IN ASYMMETRIC MULTILAYER STRUCTURES

**Curling is a common issue** in asymmetric PA/PE film extrusion used for the production of lidding films and vacuum bags. **Curled films are difficult to wind**, print or thermoform properly.

This problem arises from the difference in solidification temperature between polyamide (PA) and polyethylene (PE). It can be effectively addressed with **PROMYDE® BF940**, specially **designed for asymmetrical multilayer structures**.

**PA6 & PA6/66**
Curling

**PROMYDE® BF940**
Low Curling




## ANTICURLING SOLUTION FOR PET LAMINATION

PROMYDE® BF940 **eliminates curling, simplifying lamination** with other polymers such as PET.

Its **high gloss** and **transparency** enhance the **visual appeal** of final package, ensuring **excellent shelf impact.**

## SUPERIOR TRANSPARENCY, SHRINK & THERMOFORMING

PROMYDE® BF940 delivers **excellent optical properties** and inherent shrink performance, ensuring high-quality results in demanding packaging applications. It combines **outstanding transparency with greater stiffness** and **structural integrity**, making it the perfect choice for thermoforming and forming film applications.

COPOLYAMIDE WITH ENHANCED PROPERTIES

# PROMYDE® BF540: PA 6/66

## STANDARD PA 6/66 OFFERS VERSATILITY SUITABLE FOR MULTIPLE END-USE APPLICATIONS

**High-viscosity lubricated PA 6/66**, specifically developed for the production of blown film in food packaging applications. It is particularly well-suited for producing **high-transparency** blown films.
Its significantly **lower melting point compared to standard PA6** provides a **key advantage** in **coextrusion with temperature-sensitive materials** such as EVOH.

PROMYDE® offers a broad **viscosity range from 3.3 to 4.0**, combined with different lubrication and nucleation packages. BF540 is specifically designed to adapt to diverse packaging structures and to perform reliably in advanced processing technologies such as **cast film, blown film**, and the highly demanding **three-bubble extrusion process**.

## POLYAMIDE 6/66 RECYCLABILITY

Polyamide 6/66 is **recyclable within coextruded polyethylene (PE) / PA6/66 multilayer film structures** through the PE film recycling stream, as verified by **Institute cyclos-HTP GmbH**.

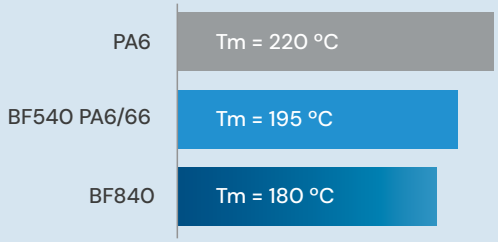
Tests conducted under practice-relevant conditions, **confirmed recyclability for packaging with up to 30% PA 6/66**.

## PROMYDE® BF540 LWB ADVANCED SOLUTION

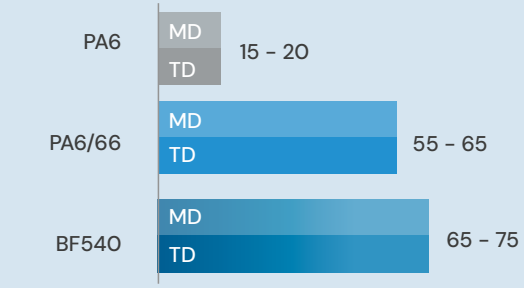
**PROMYDE® BF540 LWB** is a **high-viscosity copolyamide PA6/66**, specially formulated for the production of **high-transparency films**. This grade is recommended for outer layers in **water-cooled processes**, such as **casings** and shrink film applications.

### PROMYDE® PA 6/66 MAIN PROPERTIES

#### MELTING POINT




#### TEAR RESISTANCE (N/mm)



COPOLYAMIDE FOR DEEP THERMOFORMING

# PROMYDE® BF840: PA 6/66

## DEEP THERMOFORMING PERFORMANCE

PROMYDE® BF840 is a **high viscosity copolyamide (CoPA 6/66)** designed for **advanced flexible packaging**.

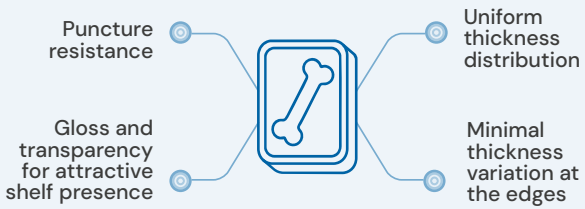
Its optimised structure delivers a unique balance of **transparency, high mechanical performance** and reliable processing in both **blown film extrusion, three bubble extrusion and thermoforming**, including **deep-draw** applications.

PROMYDE® BF840 is fully **food-contact compliant** and especially **suited for multilayer packaging structures**, ensuring **safety and performance** in demanding **food applications**.

## ADVANTAGES

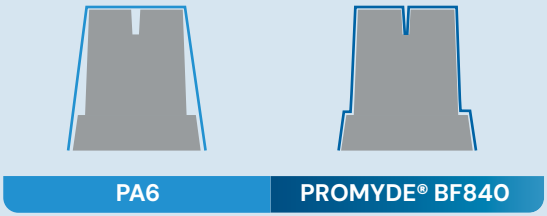
- Excellent **transparency and visual appeal**.
- High **flexibility** and **softness** for **improved formability** and **thermoforming** behaviour.
- Outstanding **tear strength** and **puncture resistance**.
- Consistent **thickness distribution**, even at the edges.
- **Reduced melting point** (~180 °C) enhancing processability and recyclability.
- Controlled orientation **shrinkage** for **improved adhesion to food surfaces**.
- Enables **film downgauging** while maintaining mechanical performance.

## SPECIAL SOLUTION FOR BONE-IN-MEAT PROMYDE® BF840




## PROMYDE® BF840 MAIN PROPERTIES

### THERMOFORMING




## PROMYDE® BF840 APPLICATIONS

**PROMYDE® BF840** is ideally suited for vacuum deep-draw thermoformed trays, vacuum bags, and skin or shrink multilayer packaging. It is particularly recommended for large meat cut.

SPECIALTY COPOLYAMIDE: BARRIER PERFORMANCE

# PROMYDE® BF740

## DOUBLE GAS BARRIER THAN PA6

**PROMYDE® BF740** is an innovative alternative to conventional barrier polymers, offering a **gas barrier twice as high as PA6**. This enables **downgauging of the polyamide layer** while extending shelf life.

With a **process temperature of 200-220 °C**, it is perfectly suited for **co-extrusion with other polymers in both blown and cast extrusion**.

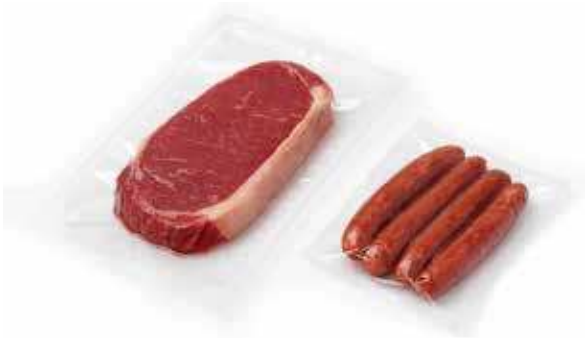
PROMYDE® BF740 is especially **recommended for retort applications**, allowing up to a 50–60% reduction of the polyamide layer while maintaining excellent barrier performance.

These lighter structures not only help reduce the carbon footprint but also support compliance with **EU eco-design recommendations**.

Unlike standard polyamides, BF740 retains its **outstanding oxygen barrier** even **under high humidity**, making it ideal for **pasteurization**, **sterilization**, and other **thermal processes**. At the same time, it **preserves transparency and thermoformability**.

## ADVANTAGES

- Superior **gas barrier** (twice that of PA6).
- Suitable for **retort treatments** while maintaining transparency.
- Excellent **thermoforming** capabilities.
- **Processing temperature of 200-220 °C, enabling co-extrusion** in both **blown** and **cast** processes.
- Allows significant **reduction of the polyamide layer thickness.**
- Contributes to an **extended shelf life** of packaged products.



## BARRIER PERFORMANCE OF **PE/PA/PE** STRUCTURES

| | TOTAL MICRONS | OTR 0% RH, 23°C ($CM^3/M^2$ DAY) | OTR 50% RH, 23°C ($CM^3/M^2$ DAY) | OTR 65% RH, 23°C ($CM^3/M^2$ DAY) | OTR 90% RH, 23°C ($CM^3/M^2$ DAY) |
|---|---|---|---|---|---|
| PA6/66 (9 µm) | 50 | 115 | 65 | 80 | 165 |
| PA6/66 (15 µm) | 80 | 80 | 50 | 70 | 130 |
| BF740 (9 µm) | 50 | 60 | 30 | 40 | 90 |

SPECIALTY COPOLYAMIDE: TEAR & PUNCTURE RESISTANCE

# PROMYDE® BF642 & BF640 TERPOLYMERS

PROMYDE® BF642 and BF640 are copolyamides that **combine excellent transparency with superior mechanical properties**, particularly tear strength and puncture resistance, making them the **ideal solution for bone-in meat packaging**.

## PROMYDE® BF642

**PROMYDE® BF642** is a high-performance **alternative to PA6/66/12**, offering **low modulus, high elongation at break**, and excellent **tear and puncture resistance**.

These mechanical advantages enable **deeper thermoforming and greater shrinkage** in vacuum forming, even under demanding conditions. In addition, PROMYDE® BF642 is fully **suitable for retort applications** while maintaining outstanding transparency.

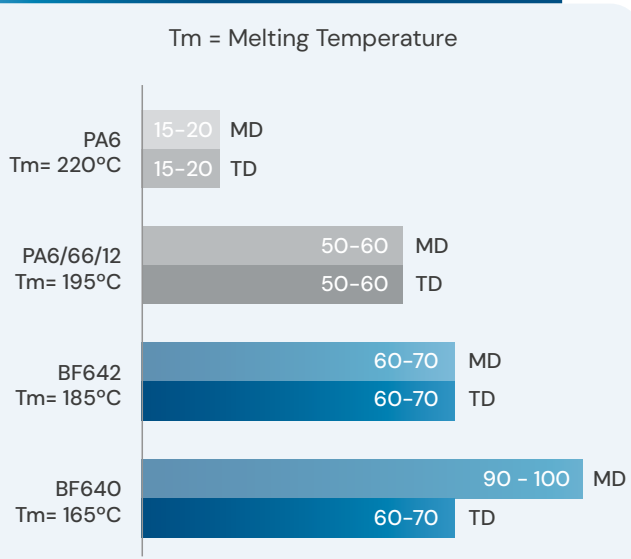
With a **low melting point of 185 °C,** it is especially **well-suited for co-extruded films** with temperature-sensitive polymers such as EVOH.

## PROMYDE® BF640

**PROMYDE® BF640** offers **superior mechanical properties**, making it especially suitable for the **most demanding packaging applications**. Its **outstanding tear resistance** combined with **greater softness** allows for **downgauging** of the polyamide layer without compromising performance.

With a **low melting point of 165 °C**, this grade is the ideal choice for **films co-extruded with temperature-sensitive** polymers such as EVOH. In addition, PROMYDE® BF640 provides a **130 °C sealing capability**, enabling the design of **100% polyamide monomaterial containers.**

### PROMYDE® BF 640 MAIN PROPERTIES



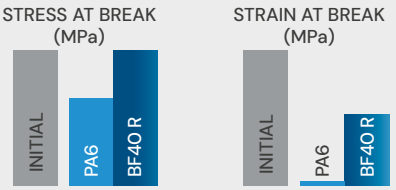

## SPECIALTY COPOLYAMIDES: HYDROLISIS RESISTANCE FOR RETORT

# PROMYDE® BF40 R, BF540 R AND BF940 R

NUREL develops high-viscosity polyamides and copolyamides **for retort packaging**, ensuring **hydrolysis resistance, mechanical integrity and long-term stability under extreme temperature**, pressure and humidity, while preserving nutritional value.

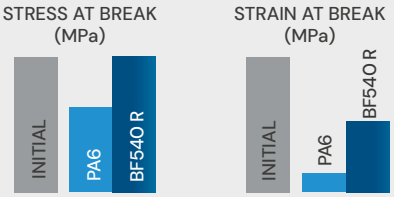
### PROMYDE® BF40 R

Optimized for **asymmetric multilayer** structures exposed to **sterilization** moisture.



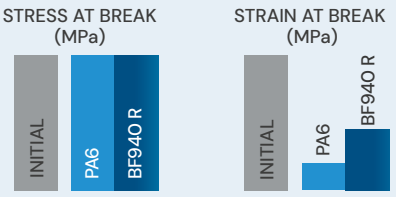

### PROMYDE® BF540 R: PA 6/66 FOR SOFTER PACKAGE

**Retort and pasteurization** grade ensuring dimensional stability and strength after thermal treatment, ideal for **deep thermoforming**.



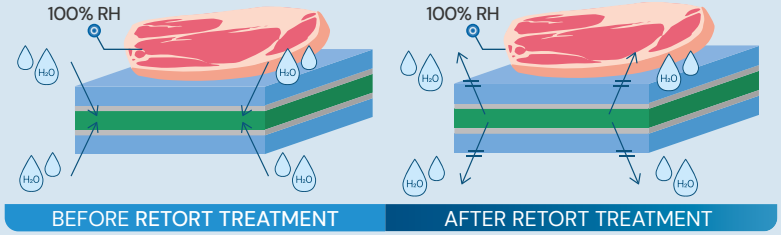

### PROMYDE® BF940 R: NO CURLING & BRIGHTNESS

**Hydrolysis-resistant** copolyamide combining gloss, transparency, **no curling** and excellent processability for high-performance retort packaging.

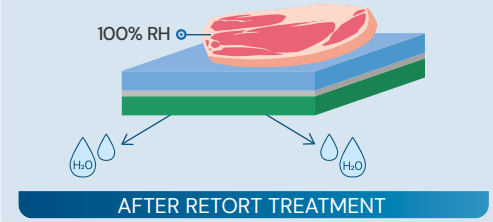



## RETORT STRUCTURES

### STANDARD RETORT STRUCTURE (PP/TIE/PA/TIE/PP)




### PROMYDE®'S SOLUTION FOR RETORT STRUCTURES (PA/TIE/PP)




## APPLICATIONS

Retort packaging **withstands 116–121 °C under pressure**, ensuring food safety in sterilization processes. The PROMYDE® **hydrolysis-resistant** range is designed for **pouches** and containers for **baby food**, **prepared meals**, **pet food,** and **sauces**. These solutions provide **thermal and mechanical resistance**, extend shelf life, and help **preserve flavor** and **nutritional value**.

SPECIALTY COPOLYAMIDES: HEAT RESISTANCE FOR OVEN-SAFE

# PROMYDE® BF40 HT, F36SC HT, BF540 HT, BF940 HT

PROMYDE® HT polyamide types are specially designed for **oven-safe flexible packaging**, including baking bags and high-temperature cooking films. These **heat-resistant PA6 and copolyamide grades** withstand **temperatures up to 210°C** for 3 hours, maintaining their mechanical integrity and barrier performance throughout the cooking process. Ideal for juicy and tender meats, fish, and vegetables, they ensure reliable oven performance even **under extended high-temperature conditions**.

## PROMYDE® BF40 HT (STANDARD PA6)

**Heat-resistant PA6** developed for oven-safe packaging and baking bags. It retains structural integrity at high temperatures, making it ideal for cooking tender meat and vegetables under extended oven use.

## PROMYDE® BF36SC HT

**Enhanced flexibility** and easy processing, combined with **superior heat resistance**.

## PROMYDE® BF940 HT - ANTI-CURLING & OVEN SAVE

**Higher transparency** and **better processability**.
Highly recommended for oven bag applications, for **high temperatures resistance** while mantaining integrity.

## PROMYDE® BF540 HT - LOWER MELTING POINT

**Low melting point** enabling reliable sealing in 100% polyamide **mono-material bags**, with added **heat resistance**.

## APPLICATIONS

High-temperature resistant PROMYDE® grades are specially designed for **ovenable bags**, ensuring safety, durability, and reliable performance during cooking processes

| | STANDARD | | ADVANCED | |
|---|---|---|---|---|
| | BF40 HT | BF36 HT | BF940 HT | BF540 HT |
| MELTING POINT | ●●● | ●● | ●● | ● |
| TRANSPARENCY | ● | ●● | ●●● | ●● |
| MODULUS | ●● | ●● | ●●● | ● |

● LOW
●● MEDIUM
●●● HIGH

BIOBASED AND BIOCIRCULAR SOLUTIONS

# BIOBASED: PROMYDE® BF1540 & BF1340

Introducing our latest innovation **PROMYDE® BF1540 & BF1340**, a new line of partially biobased copolyamides that can help reduce dependence on fossil resources. With a renewable content from 30% up to 53%. Despite being environmentally conscious, it still maintains exceptional mechanical performance similar to standard polyamides, with the added benefit of superior tear resistance.

This **PROMYDE® copolyamide range** has been specially developed to facilitate the mechanical recycling of multi-layer PE/PA film structures. Thanks to their **lower melting point**, these copolyamides enhance compatibility with polyethylene, while maintaining excellent mechanical and optical performance.

Castor oil plant (Ricinus communis), a renewable source of bio-monomers such as sebacic acid, used in the production of partially biobased polyamides.

| | PA6 | PA6/66 | BR1540 | BF1340 |
|---|---|---|---|---|
| MELTING POINT °C | 220 | 195 | 155 | 180 |

# BIOCIRCULAR: PROMYDE® BIO-C

ISCC International Sustainability & Carbon Certification

NUREL now offers a complete range of **100% bio-sourced PA materials with ISCC Plus certification**, produced under the **mass balance approach**. This has been made possible through the use of new bio-monomers derived from cooking oils, biowaste, and other bio-based byproducts. These materials not only ensure traceability and sustainability, but also provide a significantly reduced carbon footprint.

The **mass balance method** allows the mixing of renewable and conventional raw materials in production. Through a certified accounting system, the bio-based content is allocated to specific products, guaranteeing their sustainability claim while keeping industrial processes efficient and flexible.

## RECICLABILITY AND BIODEGRADABILITY

# PE/PA RECYCLABLE STRUCTURES: PROMYDE® BF740, BF640 & BF642

This PROMYDE® copolyamide range has been specially developed to facilitate the **mechanical recycling of multilayer PE/PA film structures**. Thanks to their **lower melting point**, these copolyamides **enhance compatibility with polyethylene**, while maintaining **excellent mechanical** and **optical performance**.

### PROMYDE® BF740

The **reduced OTR level**, when compared to standard polyamides, allows for the reduction of the film structure and, consequently, the percentage of PA in PE/PA film structures. This enhances their compatibility with the **PE recycling stream.**

### PROMYDE® BF640 AND BF642

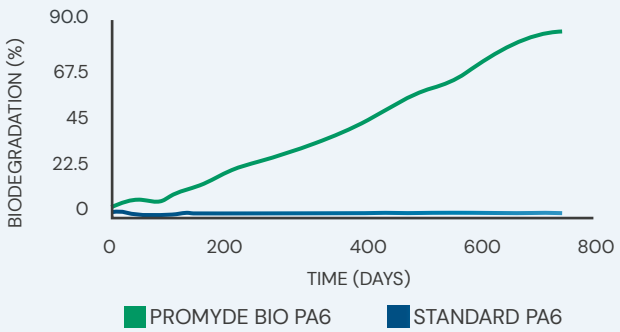
**The remarkable mechanical properties**, especially their **tear and puncture resistance**, along with their superior shrinkage and thermoforming capabilities, make it possible to optimize the layer thickness while using less PA. This results in a reduced amount of PA used and in turn, enhances the recycling compatibility of **PE/EVOH/PA structures.**

# PROMYDE® BIO: BIODEGRADABLE PA

**PROMYDE® Bio** is a biodegradable polyamide 6 engineered for applications where recovery at end-of-life is not guaranteed. It delivers excellent mechanical properties, including high puncture and tear resistance. Compatible with standard extrusion and thermoforming processes. **Biodegrades in soil and landfill conditions**, helping reduce environmental persistence. Suitable for multilayer flexible packaging structures. Ideal for ovenable bags, vacuum pouches, thermoformed trays, and barrier films. A reliable solution for sustainable packaging without compromising performance.

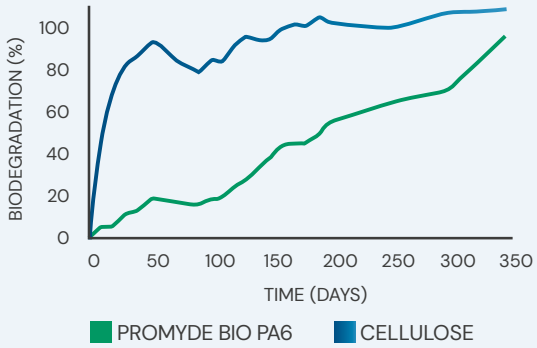
### 90% BIODEGRADATION IN 751 DAYS

ANAEROBIC BIODEGRADATION - ASTM D5511 (751 days)




### 95% BIODEGRADATION IN 348 DAYS

AEROBIC SOIL BIODEGRADATION - ISO 17556:2020 (348 days)



## COMPARATIVE PROMYDE POLYAMIDE & COPOLYAMIDE GRADES

# PROPERTIES

**NUREL's PROMYDE® polyamides** are specifically optimised for the production of **high-performance films** using all major extrusion processes: **cast, blown, triple bubble and BOPA**.

Our extensive expertise in **polymerisation and film technology** ensures **consistent quality, excellent mechanical properties and superior barrier performance** across applications.

With a broad portfolio of grades designed for **monolayer and multilayer structures**, PROMYDE® delivers the **reliability, processability and versatility** required to meet today's most demanding packaging challenges.

| | UNIT | METHOD | PA6 (BF40) | BF36SCL | BF940 |
|---|---|---|---|---|---|
| Melting Point | °C | - | 220 | 210 | 210 |
| Modulus | MPa | ISO 527-3 | 2,000-2,500 | 1,500-2,000 | 1,500-2,000 |
| Stress at break | MPa | ISO 527-3 | 50-55 | 50-55 | 50-55 |
| Strain at break | % | ISO 527-3 | 150-200 | 250-300 | 80-130 |
| Tear strength MD | N/mm | ISO 6383-1 | 15-20 | 30-40 | 15-20 |
| Tear strength TD | N/mm | ISO 6383-1 | 15-20 | 30-40 | 15-20 |
| Puncture force N | mm | ASTM 1306 | 10-12 | 12-14 | 12-14 |
| OTR 0% HR | 23°C cc/m² day bar | ASTM D3985 | 20 | 28 | 45 |
| OTR 50% HR | 23°C cc/m² day bar | ASTM F1927 | 12 | 17 | 13 |
| OTR 85% HR | 23°C cc/m² day bar | ASTM F1927 | 45 | 52 | 33 |
| Haze ASTM (D1003) | C | ASTM D1003 | 6-10 | 4-6 | <1 |

| BF540 | BF840 | BF740 | BF642 | BF640 |
|---|---|---|---|---|
| 195 | 180 | 180 | 180 | 165 |
| 700–1,200 | 400–700 | 2,000–2,500 | 700–1,200 | 400–700 |
| 50–55 | 50–55 | 50–55 | 50–55 | 45–50 |
| 250–300 | 300–350 | 80–130 | 300–350 | 350–400 |
| 55–65 | 65–75 | 30–40 | 60–70 | 90–100 |
| 55–65 | 65–75 | 30–40 | 60–70 | 60–70 |
| 13–16 | 16–19 | 13–16 | 13–16 | 13–16 |
| 28 | 27 | 22 | 48 | 48 |
| 21 | 21 | 9 | 35 | 52 |
| 59 | 64 | 16 | 70 | 90 |
| 1–2 | <1 | <1 | <1 | <1 |

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Promyde®
POLYAMIDE 6 & 66

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