

# PRODUCT PORTFOLIO

Commodities

YOUR SPECIALIST FOR  
COMMODITY  
POLYMERS



TER Plastics  
POLYMER GROUP



# WE ARE THE EXPERTS FOR YOUR INDUSTRY

High- and low-density Polyethylene, linear or branched, Polypropylene as a homopolymer, block or random copolymer, Polystyrene as a general purpose or high-impact molding compound, processed into containers or micro-gears with a capacity of several thousand liters, gray garbage cans or transparent lunch boxes, agricultural, stretch and expanded films, insulation boards or pipes: there is hardly an area of application in which commodities are not involved or are even the main plastic.

Our brand-specific solutions are as varied as your tasks. We know the specific requirements of your market and can react with customized solutions and with our comprehensive product portfolio.

Regardless of the industry in which you manufacture your plastic products: we have the necessary plastic know-how.

## OUR APPLICATIONS



Toys

Sustainable material

Food

Pharma

Packaging

# COMMODITIES: THE ALL-ROUNDER OF PLASTICS

Our materials are guaranteed to meet your requirements: regulatory challenges for blow molded parts in the pharmaceutical industry, maximum requirements in terms of sustainability and usability of films for consumer packaging or the demand for maximum design options and the highest aesthetic standards for injection-molded high-quality commodities in the household goods industry.

The product solutions of our various partners complement each other to form a commodity portfolio with which we cover almost the entire range of possible applications.

Application	LDPE, EVA LLDPE	HDPE MDPE	PPH, PPC, PPR	PS, GP, HI
Injection molding		 	 	 
Film	 			
Pipes/ Profiles/ Boards		 		 
Blow mold		 		

# STANDARD APPLICATIONS

Best quality, fast reaction times and a comprehensive logistics network make us your ideal partner for commodities. Our partnerships with leading international plastics producers ensure reliable and high-quality raw materials. We deliver PE, PP and PS reliably and at daily updated prices, which we constantly negotiate on behalf of our customers.



Producer	Brand/Material	Product
	Marlex <sup>®</sup>	HDPE
		PPH
		Additive
CLARIANT 		
	Gryfilen <sup>®</sup>	PPH, PPC, PPR
	Lucene <sup>™</sup>	mLLDPE C6
	Egyptene	HDPE
	Polyethylen	HDPE
	Polypropylen	PPH, PPC, PPR
	Lumicene <sup>®</sup>	PP / PE Metallocene
	Finalloy <sup>®</sup>	PP Automotive Compounds
	Polystyrol	PS, PSGP, PSHI, PSFR
	Clearflex <sup>®</sup>	VLDPE
	Edistir <sup>®</sup> *	PS-GP, PS-HI, PS-FR
	Eraclene <sup>®</sup>	HDPE
	Flexirene <sup>®</sup>	LLDPE
	Greenflex <sup>®</sup>	EVA
	Riblene <sup>®</sup>	LDPE

\* Available in Austria

Numerous types are also available as powders.

# APPLICATIONS WITH HIGH REGULATORY REQUIREMENTS

Did you know that LDPE is the only plastic that can be processed without additives, even without stabilization? That's why nothing can migrate out of the material after processing – this is why selected LDPE types are the only possible plastic packaging for eye drops.



These so-called „ophthalmic“ applications, but also packaging for infusion liquids and other medicines as well as for food and cosmetics, pipes and containers for fresh water and all toys are subject to very strict regulations as to how quickly a substance from the plastic may migrate into the filling material or a surrounding liquid.

Compliance with these regulatory limits needs to be proved by the plastics manufacturer and, if necessary, confirmed.

At TER Plastics you will not only find competent advice for such applications, but also the complete portfolio of regulatory-documented commodities.



## Pharma, Ophthalmic

Producer	Brand/Material	Product
 TotalEnergies	Aceso®	PP
 versalis	Pharmalene®	LLDPE, HDPE LDPE, EVA

## Food, Cosmetics, Fresh water, Toys

Producer	Brand/Material	Product
 Chevron Phillips Chemical Company	Marlex®	HDPE PPH
 GRUPA AZOTY	Gryfilen®	PPH, PPC, PPR
 LG Chem	Lucene™	mLLDPE C6
 Sidpec Sidi Kerir Petrochemicals Co.	Egyptene	HDPE
 TotalEnergies	Polyethylen	HDPE
	Polypropylen	PPH, PPC, PPR
	Lumicene®	mPP, mPE
	Polystyrol	PS, PSGP, PSHI, PSFR
 versalis	Clearflex®	VLDPE
	Edistir® *	PS-GP, PS-HI, PS-FR
	Eraclene®	HDPE
	Flexirene®	LLDPE
	Greenflex®	EVA
	Riblene®	LDPE

# SUSTAINABLE RAW MATERIALS FROM RENEWABLE OR RECYCLED PLASTICS

Plastics in the quality of new goods, suitable for food or toys if required, but more sustainable than ordinary plastic.

This is achieved by producing plastics - on previous production facilities - from vegetable oils instead of fossil oil, or oils that are by-products of plant processing or waste oils.

The sustainable oils used are balanced in mass attribution and assigned to certain sustainable polymer batches. The balancing is monitored externally and confirmed with the "ISCC plus"-Certificate.

TER Plastics has also been certified and offers you a complete portfolio of mass-balanced commodities.

If required, including regulatory documentation for use in direct food packaging, pharmaceuticals, cosmetics, drinking water applications, and toys.

## BIO-BASED POLYOLEFINE



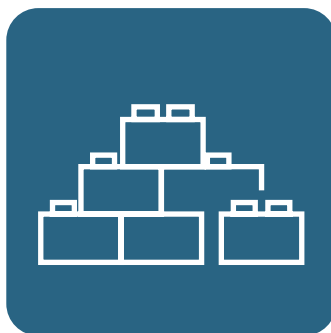
Cosmetics



Pharma





Packaging



Toys



# Bio-based Plastics

Producer	Brand/Material	Product
 TotalEnergies	Polyethylen	HDPE
	Polypropylen	PPH, PPC, PPR
	Lumicene <sup>®</sup>	mPP, mPE
	Finalloy <sup>®</sup>	PP Automotive Compounds
	Aceso <sup>®</sup>	PP f. Medical Industry
	Polystyrol	PS-GP, PS-HI, PS-FR
 versalis	Clearflex <sup>®</sup> BA / BCA	VLDPE
	Edistir <sup>®</sup> BA / BCA	PS-GP, PS-HI, PS-FR
	Eraclene <sup>®</sup> BA / BCA	HDPE
	Flexirene <sup>®</sup> BA / BCA	LLDPE
	Greenflex <sup>®</sup> BA / BCA	EVA
	Pharmalene <sup>®</sup> BA / BCA	EVA
		LDPE
		LLDPE
		HDPE
	Riblene <sup>®</sup> BA / BCA	LDPE

Numerous types are also available as powders.

All regulatory documents of the basic variants apply to the mass-balanced types.

Equality confirmations are available.

# MECHANICAL RECYCLATES

There are good reasons to use mechanically recycled plastics: they are created from previously collected and processed waste plastic parts that do not remain in the environment. The CO<sub>2</sub>-footprint of mechanical recyclates is only 30% of the footprint of primary plastics.

Throughout the EU, there will be penalties on plastic packaging that does not contain a minimum proportion of mechanical recyclates. England has already implemented a regulation, as well as Italy and Spain, which will follow soon.

TER Plastics has its own brand





**terXene**® *eco*

with over ninety mechanical recyclate grades for almost the entire range of applications of commodities, including competent advice for their application.

The product range is rounded off by semi-recyclates with very high and stable quality from Versalis, TotalEnergies and LG Chem.



# Recycled Plastics

Producer		Recycled	Application	Colour
	LLDPE Film	100% PIR	blow film	natural, amber, various colours
	LDPE Film	98-100% PCR		
	HDPE BM	100% PIR, 98-100% PCR	blow molding blow film pipes + profiles	natural, amber, various colours
	HDPE Pipe	98-100% PCR	pipes	black
	PP Extrusion	98-100% PCR	pipes + profiles	black
	PP I05			
	PP I10	98-100%	injection moulding	off-white, gray, black, terracotta
	PP I20		MFI 5-40	customized coloration
	PP I30			
	LDPE Film	70-100% PCR	blow film	amber
	HDPE BM	70% PCR	blow molding	amber
	HDPE	50% PCR	blow molding	amber
	LLDPE	60-80%	blow film, stretch film, heavy film	amber

All our products are also available as powders.

# FUNCTIONAL POLYMERS



## POLAR BARRIER POLYMERS AND ADHESIVES

Polymers	Composition	Properties
PVOH	Polyvinylalcohol	High adhesivity, resistant against oils, fats, solvents, can be modified from water-soluble to nearly insoluble

## POLAR / UNPOLAR TIE LAYERS AND COMPATIBILISERS

EAA	Ethylenacrylic acid C2-g-AA	Very good adhesion on metals, metal foils, metallised and other polar substrates
EVA	Ethylene-vinylacetate C2-g-VA	From LDPE with increased tenacity to rubber-like, adhesive moulding- and coating-substances, depending on VA-content and MFR
EPDM	EPDM, partly MAH-grafted	Impact modifier in PP und PA, compatibiliser for PO and PA, high toughness and elasticity
MAH	MA-grafted PE, PP and EPDM	Compatibiliser of polar and unpolar plastics, separation agent and impact modifier, partly very high flow, excellent adhesion
SBS	Styrol-Butadien-Styrol Copolymer	Most cohesive, low tack, very high viscosity, high transparency, high tensile strength, good processability, excellent low temperature properties

Commodities cover an overwhelmingly wide range of plastics applications.

But sometimes properties are required that are not matched by a single polymer alone, such as enhanced clearness, tenacity, impact strength, toughness, resistance to or barrier properties against specific chemicals, oxygen or CO<sub>2</sub>, oils and fats, or tackiness and adhesion to metallic or other plastic surfaces or to specific fillers. In these cases and many more, the range of performance can be extended by functional polymers, be it as an additive or as an additional layer of your product.

Toghether with our sister company TER Chemicals, TER Plastics offers you a wide ranging portfolio of functional polymers.

**Your commodity plastics part or product needs to meet some outstanding requirements?**

**– Talk to the specialists in our TER Plastics and TER Chemicals teams.**

Applications	Name	Producer	TER Group
Barrier-layer for O <sub>2</sub> , CO <sub>2</sub> , fats, oils, unpolar solvents, water-soluble packagings	POVAL EXCEVAL	Kuraray Kuraray	TER Chemicals
Film, tubes, extrusion coating, easy peel, powder coating, modification of plastics and rubbers	ESCOR	ExxonMobil	TER Chemicals
Foam, shoe soles, films with enhanced tenacity, wire and cable, chemical hoses	Greenflex EVA	Versalis LG Chem	TER Plastics TER Plastics
Impact modified compounds of PP, PA and recyclates, coupling agent towards glass-fibres	Exxelor	TCC	TER Chemicals
Adhesive layer in deep-freeze-packaging and hygiene, tie-layer in multi-layer-films, compatibiliser in filled polymers, such as glass-fibres and WPC	HMEXRHI Exxelor Licocene	LG Chem TCC Clariant	TER Plastics TER Chemicals TER Chemicals
Adhesive for labels, tapes and personal care, plastic modification in compounding, film and packaging	TAIPOL VECTOR	TSRC	TER Chemicals

Polymers	Composition	Properties
SEBS	Polystyrene-Blockcopolymers with Polybutadiene or Polyisoprene	Resistant against oxygen, ozone, UV, heat, excellent oil absorption, good balance between toughness & compression set, ease of processability, polyolefin compatibility, excellent elasticity and hysteresis
SIS	Styrol-Isopren-Styrol Copolymer	Softest, most tacky, lower viscosity, outstanding melt processability and elasticity

## POLAR / POLAR COMPATIBILISERS AND MODIFIERS

PAO	Polyalphaolefine	Excellent adhesion on unpolar substrates, completely amorphous
PIB	Polyisobut(yl)ene	From viscous oils over adhesive plastic resins up to rubber-like materials
PN	Polynonene, C9-based resins	Flow enhancer and homogenisation agent for PP, PA, black
POE	C2-co-C3, Ethylene-Propylene-rubber	Resistance against ozone and other oxidation agents, high toughness and elasticity
POE	C2-co-C4	Impact modifier
POE	C2-co-C8	Superior impact strength impact modifier
POP	C2-co-C8-Plastomer	Superior sealing performance with low heat seal initiation temperature, superior transparency hot seal

## SPECIALITY POLYOLEFINS

mLLDPE	Metallocene-LLDPE	Well-balanced characteristics between film performance and processability
mPP	Metallocene-PPR	Unmatched stress-crack-resistance under heat
PB	Polybutene Poly-C4	Very low creep, high creep rupture strength, high temperature resistance, good flexibility, chemical resistance to solvents
PE-X	crosslinked (HD)PE	No stress-crack, chemically resistant to nearly any substance



Applications	Name	Producer	TER Group
Adhesive for labels, tapes and personal care, plastic modification in compounding, film and packaging	TAIPOL VECTOR	TSRC	TER Chemicals
Adhesive for labels, tapes and personal care, plastic modification in compounding, film and packaging	VECTOR	TSRC	TER Chemicals
Melt adhesives, adhesive layers	VESTOPLAST	Evonik	TER Chemicals
Lamination and coating, roof sealing membranes, modification of polyolefins	TER PIB	TER Chem	TER Plastics
Reduction of cycle times and „tiger stripes“, improvement of surface gloss and texture	Sureflow	PSG	TER Chemicals
Compatibilizer of PCR plastics, modification of Polyolefins: improvement of flexibility, impact resistance, processability of polyolefins	VISTAMAXX	ExxonMobil	TER Plastics
Compounding in automotive, soles, W&C, steel pipe coating, PV-encapsulant, hotmelts for packaging, hygiene	LG POE EBR Solumer	LG Chem SK Chem	TER Plastics TER Chemicals
Compounding in Automotive, soles, W&C, steel pipe coating, hotmelts for packaging hygiene	LG POE EOR Solutack	LG Chem SK Chem	TER Plastics TER Chemicals
Blown + cast film, pipe, sealing layer of film, cling layer of stretch, stretch hood	LG POE POP Exxact	LG Chem Exxon	TER Plastics
Blown + cast film mLLDPE	Enable	LG Chem	TER Plastics
Melt blown, fiber, film, injection	LG mPP Licocene	LG Chem Clariant	TER Plastics TER Chemicals
Pipes, containers, cling-masterbatches and cling-layers in films	TER PIB	TER Chem	TER Plastics
Pipe, sheet, high-voltage-cables	LG XLPE	LG Chem	TER Plastics



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