INEOS Styrolution

EMEA

Our styrenics solutions

Complete portfolio. Limitless applications.

www.ineos.com/styrolution

#1
Global leader
in styrenics

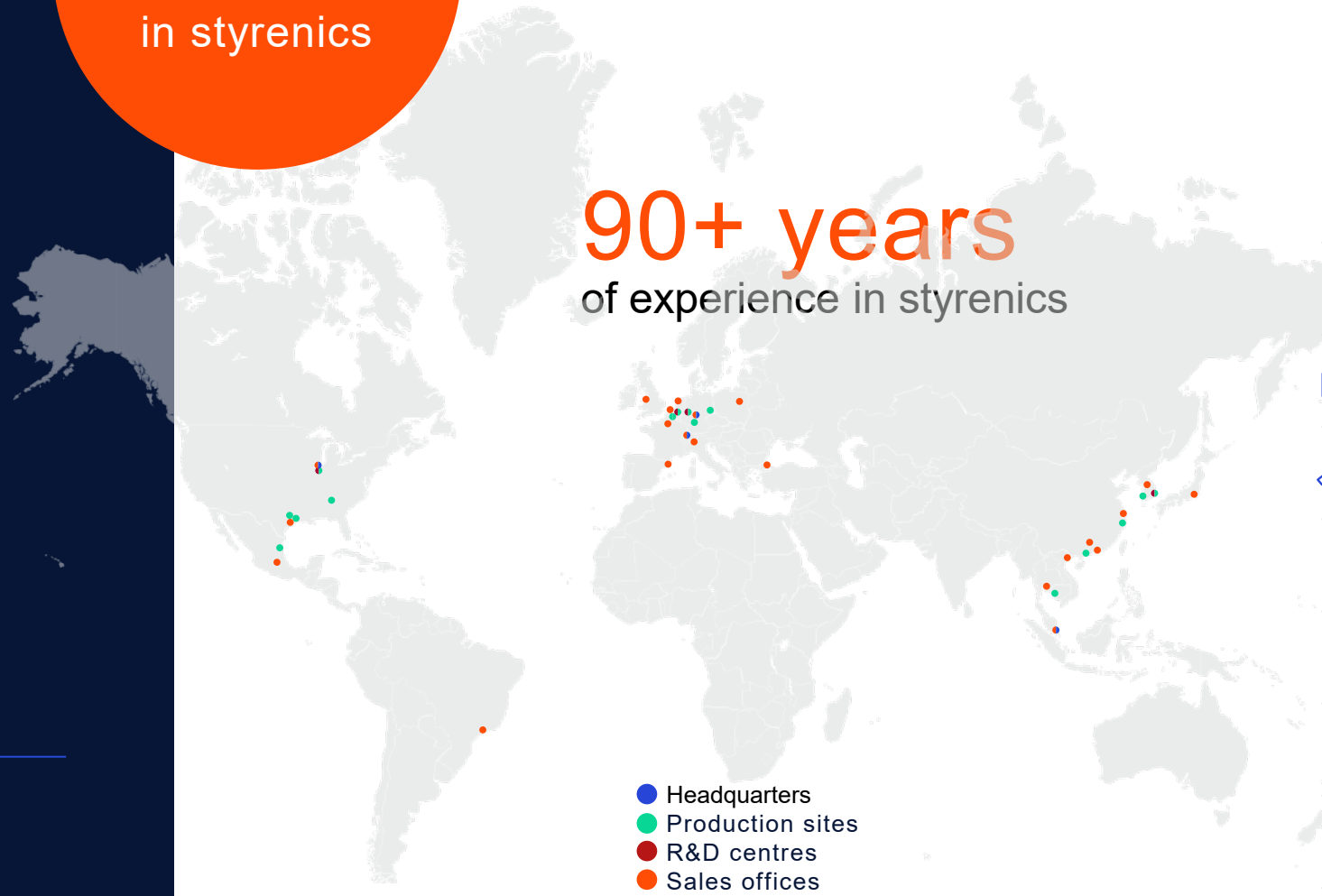
14
production sites

6
R&D centres

~2,600
employees

7
countries

3,500+
customers



90+ years
of experience in styrenics

2,000+
applications
across 7 industries:

- Household
- Electronics
- Automotive
- Construction
- Healthcare
- Packaging
- Toys, sports & leisure

INEOS | Styrolution

Versatile. High-performance. Future-ready.

INEOS Styrolution provides a comprehensive portfolio of **PS**, **ABS** and **advanced styrenics** materials that offer design freedom, consistent performance and reliable quality. Our materials support diverse functional and aesthetic demands across a wide range of applications and industries.

Why styrenics from INEOS Styrolution

- Complete portfolio with reliable global supply
- Outstanding surface quality, durability, and design flexibility
- Customised grades developed in collaboration with customers
- Local presence with strong commercial & technical expertise

Our ECO grades: Same performance. Lower footprint.

- Drop-in solutions with identical quality and processability
- Bio-attributed and recycled options via mass balance
- Certified under independent schemes such as ISCC PLUS
- Designed to help customers reduce their carbon footprint

TRANSPARENT	STIFFNESS	Colour consistency Easy processing	**STYROLUTION ® PS (GPPS)**	General purpose polystyrene resin
		Dimensional stability Heat resistance Chemical resistance	**LURAN®**	Styrene acrylonitrile copolymer (SAN)
			LURAN® HIGH HEAT	Alpha-methylstyrene acrylonitrile (AMSAN) copolymer
		Flowability For medical use	**NAS®**	Transparent styrene methyl methacrylate (SMMA) copolymer
	IMPACT RESISTANCE	Chemical resistance Rigidity & stiffness For medical use	**TERLUX®**	Methyl methacrylate acrylonitrile butadiene styrene (MABS) copolymer
		Processability Toughness Alcohol resistance	**ZYLAR®**	Methyl methacrylate butadiene styrene (MBS) polymer
		High flow Processability	**CLEARLUX®**	Methyl methacrylate acrylonitrile butadiene styrene (MABS) copolymer
		Low temperature toughness Processability PS modifier	**STYROLUX®**	Thermoplastic transparent and impact-resistant styrene butadiene block copolymers (SBC)
			K-RESIN®	
		Thermoplastic elastomer Flowability Impact modifier	**STYROFLEX®**	Thermoplastic styrene butadiene block copolymer (SBC) with tailor-made architecture

Many of our grades are available as ECO versions, helping you meet your sustainability goals without compromising on quality or performance.
For custom solutions or specific project needs, reach out to your INEOS Styrolution contact or INSTY.infopoint.emea@ineos.com

NON-TRANSPARENT	IMPACT RESISTANCE (ABS & PS)	Toughness Environmental stress cracking resistant (ESCR) Easy processing	**STYROLUTION® PS (HIPS)**	High impact modified polystyrene resin
		High gloss Self-colourability Flowability Low temperature toughness	**TERLURAN®**	emulsion ABS (eABS)
		Extrusion Thermoformability Self-colourability Flowability	**LUSTRAN®**	mass ABS (mABS)
		For medical use Chemical resistance Flowability & high gloss Electroplating	**NOVODUR®**	Specialty acrylonitrile butadiene styrene (ABS) copolymer
		Electroplating Heat resistance Dimensional stability Low emission & flowability	**NOVODUR® HIGH HEAT**	Enhanced heat resistance specialty acrylonitrile butadiene styrene (ABS) copolymer and blends of ABS and polycarbonate (ABS/PC)
	UV RESISTANCE (ASA)	Impact strength & flowability Chemical resistance Heat resistance Dimensional stability	**LURAN® S**	Acrylonitrile styrene acrylate (ASA) copolymer
	HIGH DURABILITY	Long term property retention Impact strength Heat resistance	**LURAN® SC**	Blend of acrylonitrile styrene acrylate copolymer and polycarbonate (ASA/PC)
		Flowability Impact strength Low gloss Chemical resistance	**TERBLEND® N** **TERBLEND® S**	Acrylonitrile butadiene styrene copolymer blend with polyamide (ABS/PA) Acrylonitrile styrene acrylate copolymer blend with polyamide (ASA/PA)

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LURAN®
LURAN® High Heat

Also available as

eco

Luran® is a styrene acrylonitrile copolymer (SAN) known for its well-balanced properties, including excellent transparency, high chemical resistance, superior stiffness, remarkable heat resistance, and outstanding dimensional stability. Our Luran portfolio offers a diverse range of grades tailored for both injection moulding and extrusion applications.

Luran® High Heat is an alpha methyl-styrene-acrylonitrile copolymer (AMSAN) dedicated for compounding. It offers high stiffness, chemical and heat resistance, excellent dimensional stability, as well as scratch resistance.

Key applications

- Water tanks
- Food containers & storage systems
- Mixers & blenders
- Industrial batteries
- Window spacers
- Shower trays
- Exterior automotive applications
- ABS, ASA & PVC compounding
- Cosmetic articles
- Office equipment
- Medical devices

Key properties

- Transparency
- Chemical resistance
- Heat resistance
- Regulatory compliant/ medical use
- Dimensional stability
- Rigidity/ stiffness

LURAN®
LURAN® High Heat

				Polymer abbreviation	Method: injection moulding (M), extrusion (E)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile strain at break (23 °C)	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Vicat softening temperature VST/B/50	Max. ECO material available
			Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eU	ISO 306	
			Unit			cm³/10 min	MPa	%	kJ/m²	kJ/m²	°C	
Crystal clear available	Excellent transparency, light natural colour	High ultra flow	LURAN 338L	SAN	M	40.0	3500	2.00	1.7	14.5	105	BC80
			LURAN 348Q	SAN	M	19.0	3600	2.50	1.5	14	105	BC80
	General purpose	Easy flow	LURAN 358N	SAN	M	22.0	3700	3.00	2	16	106	BC70
			LURAN 368R	SAN	M, E	10.0	3700	3.00	2	18	106	BC70
Chemical resistance		Easy flow	LURAN 378P	SAN	M	20.0	3800	3.50	2	19	107	BC60
		High impact strength	LURAN 388S	SAN	M, E	7.0	3800	4.00	2.5	21	107	BC60
Full HD Service Package		Easy flow	LURAN HD 20	SAN	M	22.0	3700	3.00	2	16	106	BC70
Enhanced dimensional stability and heat resistance	Glass fibre reinforced	Enhanced rigidity	LURAN 378P G7	SAN	M, E	4.0	12000	2.00	4	17	109	
			LURAN HH-120	AMSAN	M, E	7.0	3900	3.00	2	20	120	

BC = bio-circular

PCF savings up to -83%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

LURAN® ECO

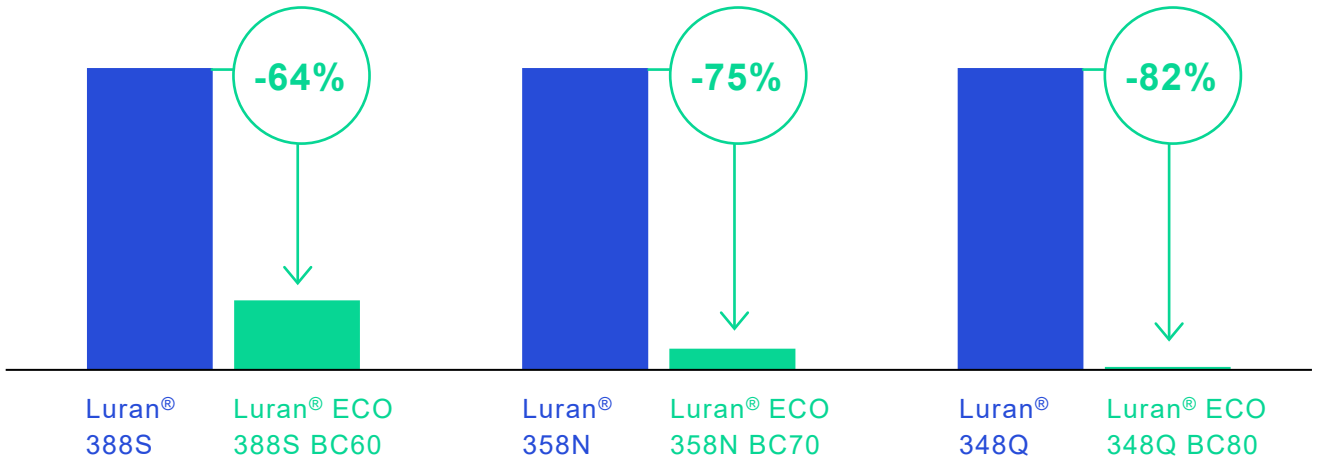
up to
80%
bio-attributed material
based on certified mass balance process

up to
83%
CO_2e reduction
compared to conventional Luran®

Luran® ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Luran® ECO is available with up to 80% bio-attributed material, resulting in a carbon footprint reduction of up to 83% compared to fossil-based Luran®.

Examples for emissions reduction*

Certificate Holder ISCC International Sustainability & Carbon Certification



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

Coffee machine housing & water tank

Made with Terluran® ECO GP-22 MR50 & Luran® ECO 358N BC70

up to **37%** CO_2e **reduction** compared to conventional ABS

up to **75%** CO_2e **reduction** compared to conventional Luran® 358N

CASE STUDY

Customer challenge

A household appliance manufacturer sought sustainable solutions for the housing and water tank of its coffee machines. They required an eco-friendly material matching the quality & performance of its fossil-based counterpart.

Our solution

Terluran® ECO GP-22 MR50, comprising 50% post-consumer-recycled ABS, boasts exceptional mechanical properties, including superior surface quality. Its feedstock is derived from WEEE (waste electrical and electronic equipment). Meanwhile, Luran® ECO 358N BC70 is linked to a minimum of 70% bio-attributed material via mass balance. Its sourcing and production processes are certified under ISCC PLUS.

NAS®

Also available as

eco

NAS® is a high-performance, amorphous styrene methyl methacrylate (SMMA) copolymer, offering exceptional strength, stiffness, and optical clarity. It is ideal for water-clear applications, offering excellent thermal stability, robust alcohol resistance, and virtually no moulded-in stress.

With optical properties comparable to PMMA, NAS® offers the added benefits of lower density and easier processing compared to traditional acrylics. It is fully compliant with FDA and EU food contact regulations and meets stringent medical standards, including USP Class VI and ISO 10993.

Key applications

- Water filters
- Water tanks
- Water jugs
- Food boxes
- Point-of-purchase displays
- Medical devices and packaging, e.g. injection pens

Key properties

- Flowability
- Transparency
- For medical use
- Clarity
- Regulatory compliant

NAS®

			Polymer abbreviation	Method: injection moulding (M), extrusion (E), blow moulding (B)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile strain at break (23 °C)	Charpy unnotched impact strength (23 °C)	Vicat softening temperature, VST/B/50	Light trans-mission (2 mm thickness)	Haze (2 mm thickness)	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eU	ISO 306	ASTM D 1003	ASTM D 1003	
		Unit			cm³/10 min	MPa	%	kJ/m²	°C	%	%	
General purpose	Water clear clarity	NAS 21	SMMA	M, E, B	24.0	3300	2.5	12	98	91.3	0.30	BC70
	Water clear clarity, enhanced flowability	NAS 30	SMMA	M, E, B	30.0	3300	2.5	12	98	91.4	0.30	BC70
	Water clear clarity, enhanced toughness	NAS 90	SMMA	M, E, B	16.0	3100	2.3	13	90	91.0	0.30	

BC = bio-circular

PCF savings up to -74%.

PCF statements available on request.
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NAS® ECO

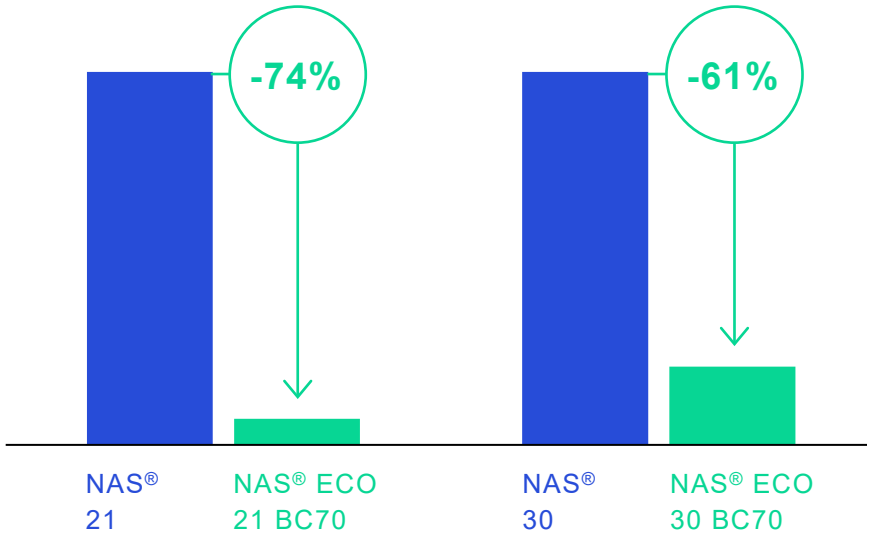
up to
70%
bio-attributed material
based on certified mass balance process

up to
74%
CO_2e reduction
compared to conventional NAS®

NAS® ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. NAS® ECO is available with up to 70% bio-attributed material. This results in a carbon footprint reduction of up to 74% compared to fossil-based NAS®.

Certificate Holder ISCC International Sustainability & Carbon Certification

Examples for emissions reduction*



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INEOS | Styrolution

STYROLUX®
K-RESIN®

Also available as

Styrolux® and K-Resin® are thermoplastic styrene butadiene copolymers (SBC) that offer an impressive combination of high transparency and impact resistance. Styrolux is versatile, suitable for extrusion, thermoforming, and injection moulding. K-Resin® stands out for its distinctive blend of brilliant clarity, impact toughness, stiffness, and exceptional gloss.

The good miscibility of Styrolux® and K-Resin® with polystyrene allows for adjustment to achieve the desired toughness. Due to their high compatibility with other polymers, additives and fillers, both SBCs offer advantages in compounding by enhancing toughness and processability.

Key properties

- Transparency
- Good impact strength
- Flowability
- Compounding

Key applications

- Rigid food packaging
- Multilayer packaging
- Shrink films
- Medical equipment (drip chambers, connectors, etc.)
- Compounding (master batches, flooring, etc.)

STYROLUX®
K-RESIN®

			Polymer abbreviation	Method: injection moulding (M), extrusion (E), blow moulding (B), compound-ing (C)	Melt volume rate (200 °C / 5 kg)	Tensile modulus	Tensile strain at break (23 °C)	Charpy unnotched impact strength (23 °C)	Hardness shore D	Vicat softening temperature, VST/ B/ 50	Light transmission (2 mm thickness)	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eU	ISO 868	ISO 306	ASTM D 1003	
		Unit			cm³/10 min	MPa	MPa	kJ/m²		°C	%	
Standard grades	High stiffness, clarity & medical applications	STYROLUX 656C	SBC	M	16.0	1600	20	20	70	60	91	BC100
	Good printability & medical applications	STYROLUX 684D	SBC	M, E, B	11.0	1400	160	n.b.	63	55	90	BC100
	High toughness	STYROLUX 693D	SBC	E	12.0	1200	260	n.b.	60	49	89	BC100
Excellent blending with GPPS	Highest transparency in blends with GPPS	STYROLUX 3G46	SBC	M, E, B	12.0	1500	70	n.b.	58	55	91	BC100
	High impact strength, excellent blending with GPPS & medical applications	STYROLUX 3G55	SBC	E, C	14.0	900	300	n.b.	54	42	88	BC100
Grades for shrink sleeves	Improves toughness, low gels	STYROLUX T	SBC	E	12.0	1000	250	n.b.	58	45	89	BC100
	Improves stiffness, low gels	STYROLUX S	SBC	E	12.0	2800	3	14	81	64	91	BC100
Standard grades	High stiffness, clarity & medical applications	K-RESIN KR01	SBC	M	8.0	1600	10	20	70	65	92	BC100
	High melt flow	K-RESIN BK10E	SBC	M	15.0	1500	180	n.b.	61	50	91	BC100
	Good printability & medical applications	K-RESIN KR03E	SBC	M, E	7.5	1500	170	n.b.	61	51	91	BC100
	Low gels	K-RESIN DK11	SBC	E	7.5	1500	170	n.b.	61	51	91	
Grades for blending & compounding	Cold temperature impact applications	K-RESIN KR38	SBC	E, C	9.0	900	200	n.b.	55	50	90	
	Very high toughness	K-RESIN KR20	SBC	C	6.0	600	>500	n.b.	47	41	91	

BC = bio-circular

PCF savings up to -116%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

STYROLUX® ECO

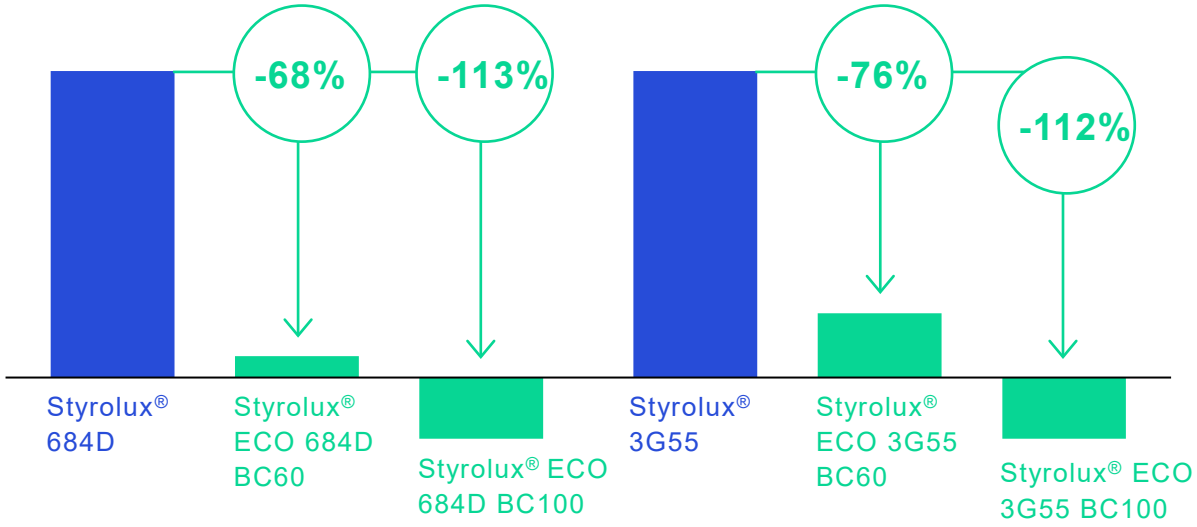
up to
100%
bio-attributed material
based on certified mass balance process

up to
116%
CO_2e reduction
compared to conventional Styrolux®

Styrolux® ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Styrolux® ECO is available with up to 100% bio-attributed material. This results in a carbon footprint reduction of up to 116% compared to fossil-based Styrolux®*.

Certificate Holder ISCC International Sustainability & Carbon Certification

Examples for emissions reduction*



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

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INEOS | Styrolution

STYROFLEX®

Also available as

ECO

Key applications

- Impact-modified compounds
- Soft medical components
- Additive in recyclates
- Flexible films

Key properties

- Compounding
- Good impact strength
- Easy processing
- Transparency

Styroflex® is a transparent thermoplastic styrene butadiene copolymer (SBC). It is characterised by a combination of high resilience, toughness and good clarity, and it offers great adhesion to and miscibility with other polymers. In elastic film applications, Styroflex provides excellent stretch recovery, superior transparency and puncture resistance. As a high-performance additive, it is ideal for increasing toughness and improving stress cracking resistance in styrenic and olefinic polymers.

Additionally, it acts as a compatibiliser for many fillers and enhances the properties of mechanically recycled materials.

STYROFLEX®

			Polymer abbreviation	Method: extrusion (E), compounding (C)	Melt volume rate (200 °C / 5 kg)	Tensile modulus	Tensile strain at break (23 °C)	Charpy notched impact strength (23 °C)	Hardness shore A	Vicat softening temperature VST/ A/ 50	Light transmission (2 mm thickness)	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 868	ISO 306	ASTM D 1003	
		Unit			cm³/10 min	MPa	MPa	kJ/m²		°C	%	
General purpose, medical applications	High toughness, polymer compatibility	STYROFLEX 2G66	SBC	C, E	13.0	70	>500	n.b.	86	39	84	BC100
Soft medical applications	Increased softness	STYROFLEX 4G80	SBC	C, E	18.0	50	>500	n.b.	80	37	82	BC100

BC = bio-circular

PCF savings up to -119%.

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STYROFLEX® ECO

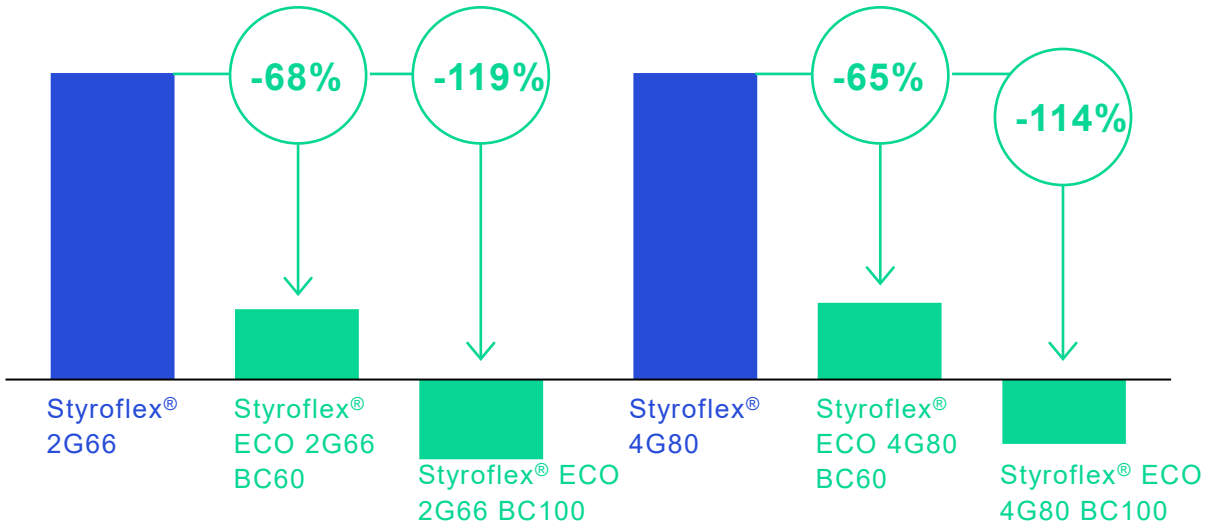
up to
100%
bio-attributed material
based on certified mass balance process

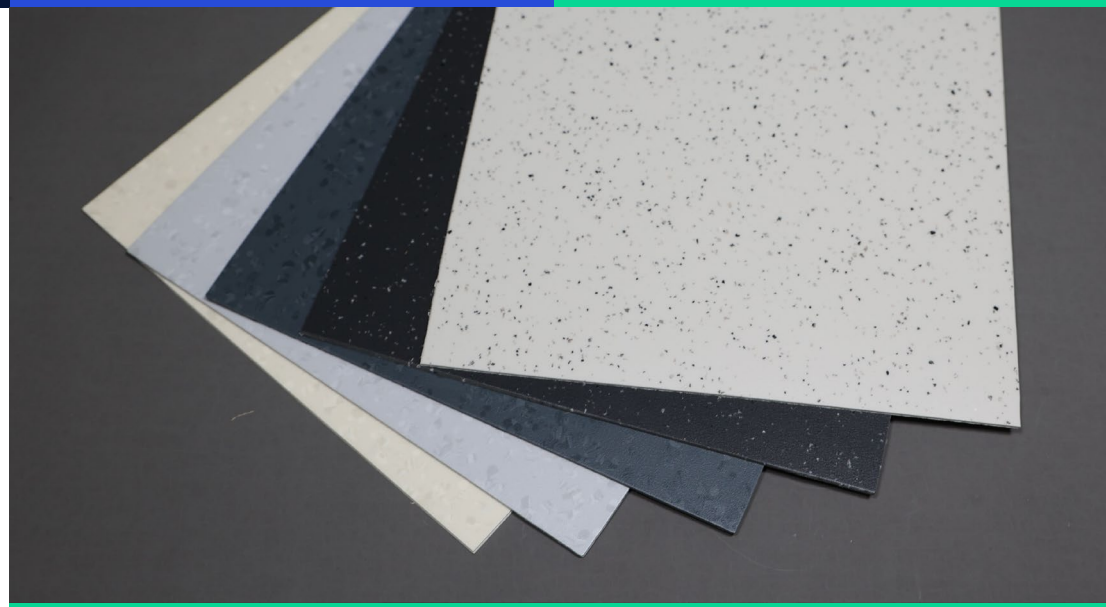
up to
119%
CO_2e reduction
compared to conventional Styroflex®

Styroflex® ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Styroflex® ECO is available with up to 100% bio-attributed material. This results in a carbon footprint reduction of up to 119% compared to fossil-based Styroflex®.

Examples for emissions reduction*

Certificate Holder ISCC International Sustainability & Carbon Certification





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INEOS | Styrolution

ZYLAR®

Also available as

Key properties

- Transparency
- Good impact strength
- Flowability
- For medical use

Zylar® is a methacrylate-butadiene-styrene (MBS) copolymer, serving as an alternative to MABS and offers good toughness and excellent clarity.
It has superior processing compared to competing materials like polycarbonate and copolyesters while providing a lower density advantage.

Zylar® enables low cycle time at low processing temperatures. Zylar® meets USP class VI and has good resistance to many detergents and alcoholic cleaners.

Key applications

- Domestic devices
- Transparent toys
- Medical equipment
- Body care appliances
- Office supplies

ZYLAR®
ZYLAR® ECO

		Polymer abbreviation	Method: injection moulding (M), extrusion blow moulding (EB)	Melt volume rate (200 °C / 5 kg)	Tensile modulus	Tensile strain at break (23 °C)	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Vicat softening temperature VST/ B/ 50	Light trans-mission (2 mm thickness)	Haze (2 mm thickness)	Max. ECO material available
	Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eU	ISO 306	ASTM D 1003	ASTM D 1003	
	Unit			cm³/10 min	MPa	%	kJ/m²	kJ/m²	°C	%	%	
Highest stiffness, moderate impact strength	ZYLAR 245	MBS	M, EB	4.5	2300	20	1.5	18	80	90	1.50	BC80
Good balance of stiffness & impact strength	ZYLAR 550	MBS	M, EB	5.0	2100	50	4	150	73	90	1.80	BC40
	ZYLAR 650	MBS	M, EB	4.0	2100	40	2	40	74	90	1.50	BC30
Highest impact strength	ZYLAR 960	MBS	M	6.0	1650	120	25	250	60	89	1.80	BC90

BC = bio-circular

PCF savings up to -93%.

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ZYLAR® ECO

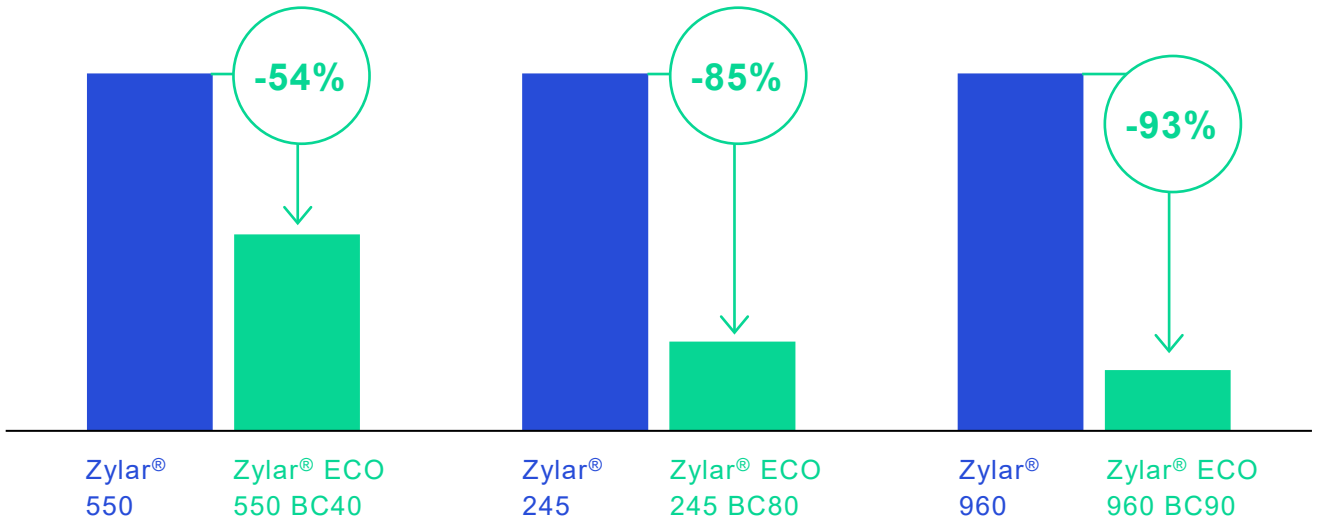
up to
90%
bio-attributed material
based on certified mass balance process

up to
93%
CO_2e reduction
compared to conventional Zylar®

Zylar® ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process. Zylar® ECO is available with up to 90% bio-attributed material certified under ISCC PLUS. Based on this we calculated a carbon footprint reduction of up to 93% compared to fossil-based Zylar®*.

Examples for emissions reduction

Certificate Holder ISCC International Sustainability & Carbon Certification




© playmobil

Drop-in solution

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- Seamless technological compatibility

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INEOS | Styrolution

Children’s playsets

Made with bio-attributed Zylar® ECO 960 BC90

up to

93%

CO_2e reduction

compared to conventional Zylar® 960

CASE STUDY

Customer challenge

PLAYMOBIL, a leading global toy producer, aimed to find sustainable materials for its PLAYMOBIL JUNIOR playsets. Their primary goal was to transition their product portfolio from traditional fossil-based materials to eco-friendly, bio-based alternatives.

Our solution

Zylar® ECO 960 BC90 is made using renewable material linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Zylar® ECO exhibits good impact strength and high flowability and stands out for its high transparency.
Zylar® ECO utilises 90% bio-based material, making this product an optimal choice for integration into PLAYMOBIL children’s playsets.

CLEARLUX®

Also available as

Clearlux® 816 is a methyl methacrylate acrylonitrile butadiene styrene (MABS) polymer. This grade offers a unique combination of excellent flow, high impact strength, heat resistance, and good colourability.

Clearlux is dedicated for non-medical applications.

Key applications

- Impact-modified compounds
- Soft medical components
- Additive in recyclates
- Flexible films

Key properties

- Chemical resistance
- Heat resistance
- Transparency
- Food contact
- Good impact strength

CLEARLUX®

		Polymer abbreviation	Method: injection moulding (M)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile strain at break (23 °C)	Charpy notched impact strength (23 °C)	Vicat softening temperature VST/ A/ 50	Light trans-mission (2 mm thickness)	Haze (2 mm thickness)	Max. ECO content available
	Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 306	ASTM D 1003	ASTM D 1003	
	Unit			cm³/10 min	MPa	%	kJ/m²	°C	%	%	
High flow, high impact, excellent transparency	CLEARLUX 816	MABS	M	16.0	1900	8	12	87	90	2.00	BC30

BC = bio-circular

PCF savings up to -25%.

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CLEARLUX® ECO

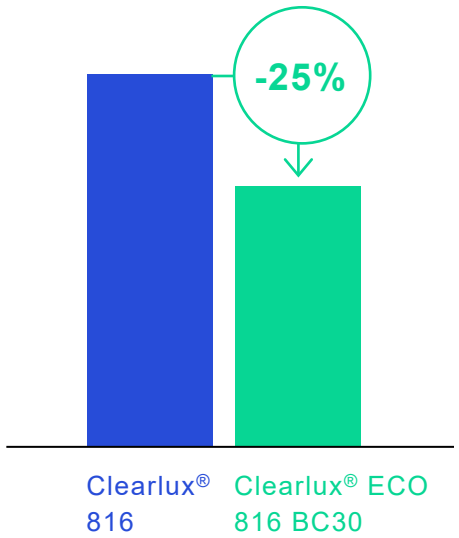
up to
30%
bio-attributed content
based on certified mass balance process

up to
25%
CO_2e reduction
compared to conventional Clearlux®

Clearlux® ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Clearlux® ECO is available with up to 30% bio-attributed material. This results in a carbon footprint reduction of up to 25% compared to fossil-based Clearlux®.

Certificate Holder ISCC International Sustainability & Carbon Certification

Examples for emissions reduction*



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

TERLUX®
TERLUX® HD

Also available as

Terlux® is a methyl acrylate-butadiene-styrene (MABS). Key properties of Terlux include excellent transparency, high impact strength and good chemical resistance. Terlux can be used to create particularly brilliant visual effects such as very deep colours, pearly or sparkle effects and can also be printed on without any problems. This combination of properties and ease of processing makes Terlux an optimal choice for upscale and design-oriented applications.

The **Terlux® HD** grades are optimised to meet the specific requirements of medical applications.

Key applications

- Medical devices, e.g. connectors, stopcocks
- Cosmetic packaging
- Toys, sports and leisure, e.g. ski coating
- Toothbrushes

Key properties

- Transparency
- Rigidity/ stiffness
- Good impact strength
- For medical use
- Chemical resistance
- Sterilisable

TERLUX®
TERLUX® HD

			Polymer abbreviation	Method: injection moulding (M), extrusion (E), blow moulding (B)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile strain at break (23 °C)	Charpy notched impact strength (23 °C)	Vicat softening temperature VST/ A/ 50	Light trans-mission (2 mm thickness)	Haze (2 mm thickness)	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eU	ISO 306	ASTM D 1003	ASTM D 1003	
		Unit			cm³/10 min	MPa	%	kJ/m²	°C	%	%	
General purpose		TERLUX 2802	MABS	M, E, B	2.0	2000	4	5	93	89	<3.00	
	Easy flow	TERLUX 2812	MABS	M, E, B	8.0	1900	4	5	87	89	<3.00	
High impact		TERLUX 2802 Q434	MABS	M, E, B	2.0	2000	4	10	93	89	<3.00	
	Easy flow	TERLUX 2812 Q434	MABS	M, E, B	6.0	1800	4	8	85	89	<3.00	
Healthcare*		TERLUX HD 2802	MABS	M, E, B	2.0	2000	4	5	93	89	<3.00	BC25
	Easy flow	TERLUX HD 2812	MABS	M, E, B	8.0	1900	4	5	87	89	<3.00	BC25

BC = bio-circular

*For healthcare applications, INEOS Styrolution offers a Full-Service HD package providing reliable formulations, global regulatory approval support, compatibility testing to specific chemicals, technical support (processing, design, calculation), enhanced quality control processes (cleaning, sampling frequency and documentation) and high-performance property profiles

PCF savings up to -22%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

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We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

TERLUX® ECO

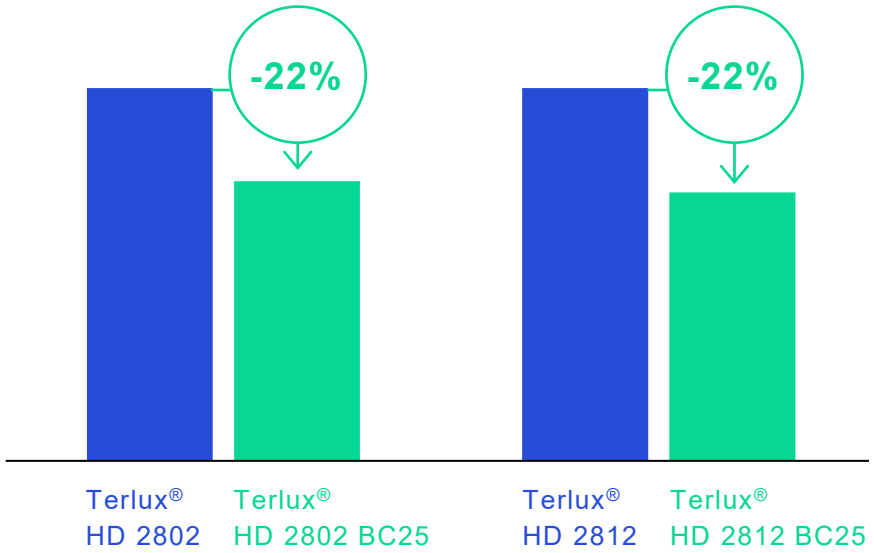
up to
25%
bio-attributed content
based on certified mass balance process

up to
22%
CO_2e reduction
compared to conventional Terlux®

Terlux® ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Terlux® ECO is available with up to 25% bio-attributed material. This results in a carbon footprint reduction of up to 22% compared to fossil-based Terlux®.

Certificate Holder ISCC International Sustainability & Carbon Certification

Examples for emissions reduction*



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

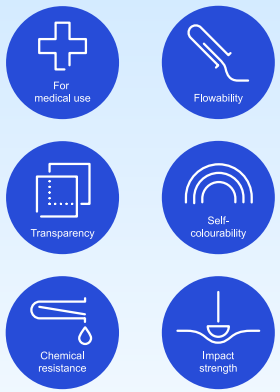
Inhaler

Made with Novodur® ECO HD M203FC BC50 &
Terlux® ECO HD 2802 BC25

up to
65%
CO_2e reduction
compared to conventional ABS

up to
22%
CO_2e reduction
compared to conventional Terlux

CASE STUDY



Customer challenge

Companies specialising in respiratory and drug delivery devices faces the challenge of finding a material for its inhalers that meets medical standards, offers strong mechanical properties, and maintains a high-quality appearance. Additionally, they need a sustainable, renewable option that would substantially lower the carbon footprint.

Our solution

The solution for the inhaler was to use two INEOS Styrolution grades. Novodur® ECO HD M203FC BC50, an acrylonitrile butadiene styrene (ABS), was chosen for the mouthpiece and housing due to its high surface quality and good impact strength. Terlux® ECO HD 2802 BC25, an injection moulding grade based on a MABS polymer, was selected for the mouthpiece due to its high transparency. Both products meet the regulatory requirements of the healthcare industry and are certified under ISCC PLUS.

Figures are based on the data and methods valid at the time of calculation.
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INEOS | Styrolution

LURAN® S

*Also available as

Luran® S is an acrylonitrile styrene acrylate (ASA) copolymer. The Luran® S portfolio sets the benchmark for weather resistance in styrenic polymers. These grades feature high surface quality, excellent chemical resistance, and good impact strength, as well as enhanced colour fastness and superior long-term performance when exposed to UV radiation and heat.

Key applications

- **Automotive exteriors:** grills, housings, pillars, spoilers, trims, brackets
- **Household appliances:** washing machines, toothbrushes
- **Outdoor applications:** sheets, sidings, roof tiles, gutters, photovoltaic cells
- **Gardening**: lawn mower, tools
- **Truck exteriors:** deflectors, grills
- Agricultural vehicles
- Caravaning

Key properties

- Advanced UV resistance & colour fastness
- Superior heat resistance
- High impact strength and long-term property retention
- Good dimensional stability
- Broad flowability spectrum
- Enhanced chemical resistance

LURAN® S

Standard portfolio

			Polymer abbreviation	Method: injection moulding (M), extrusion (E)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile strain at yield (23 °C)	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Vicat softening temperature, VST/B/50	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eA	ISO 306	
		Unit			cm³/10 min	MPa	%	kJ/m²	kJ/m²	°C	
High heat	Chemical resistance	LURAN S 778T	ASA	M	5.0	2500	3.4	15	4	104	BC30
		LURAN S 778TE	ASA	E	5.0	2500	3.4	15	4	104	BC30
High flow	Superior flow	LURAN S 757G	ASA	M	25.0	2400	3.3	12	3	97	BC50
	Enhanced stiffness	LURAN S 757R	ASA	M	8.0	2600	3.1	12	3	98	BC50
	General purpose	LURAN S 777K	ASA	M	15.0	2300	3.3	17	4	97	BC50
High impact	Low gloss	LURAN S 776S	ASA	M	4.0	2200	3.3	30	4	92	BC40
		LURAN S 776SE	ASA	E	4.0	2200	3.3	30	4	92	BC40
	Enhanced flow	LURAN S 796M	ASA	M, E	9.0	2000	3.5	30	5	90	BC40
	Superior impact	LURAN S 797S	ASA	M	6.0	2000	3.5	40	9	90	BC40
		LURAN S 797SE	ASA	E	6.0	2000	3.5	40	9	90	BC40

BC = bio-circular

PCF savings up to -49%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

LURAN® S

Advanced products

			Polymer abbreviation	Method: injection moulding (M), extrusion (E)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile strain at yield (23 °C)	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Vicat softening temperature, VST/B/50	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eA	ISO 306	
		Unit			cm³/10 min	MPa	%	kJ/m²	kJ/m²	°C	
High gloss	Superior surface quality & UV protection	LURAN S 778T XA SPF60	ASA	M	5.0	2500	3.4	15		103	BC30
Matte	Super low gloss modification	LURAN S 797SE Q440	ASA	E	5.0	1900	3.5	20	5	92	BC40
Easy colourability	For self-colouring	LURAN S KR2950	ASA, PMMA	M. E	10.0	2100	3.6	9	3	91	BC40
High stiffness	For profile & sheet extrusion	LURAN S KR2859	ASA	M, E	12.0	2500	3.2	11	4	98	BC50
Glas fibre	Low shrinkage (low GF8)	LURAN S 778T G2	ASA GF8	M, E	3.5	3700	2.4	5	4	106	BC20
	Superior rigidity (high GF15)	LURAN S KR2858G3	ASA GF15	M, E	5.0	6600	2.5	7	5	115	BC10
Specialties	Medical applications*	LURAN S MED 797S	ASA	M	5.5	2000		40	9	88	BC40
	Food contact applications*	LURAN S 797S FC	ASA	M	5.5	2000		40	9	88	BC40

***combination possible**

BC = bio-circular

PCF savings up to -49%.

PCF statements available on request.
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LURAN® S ECO

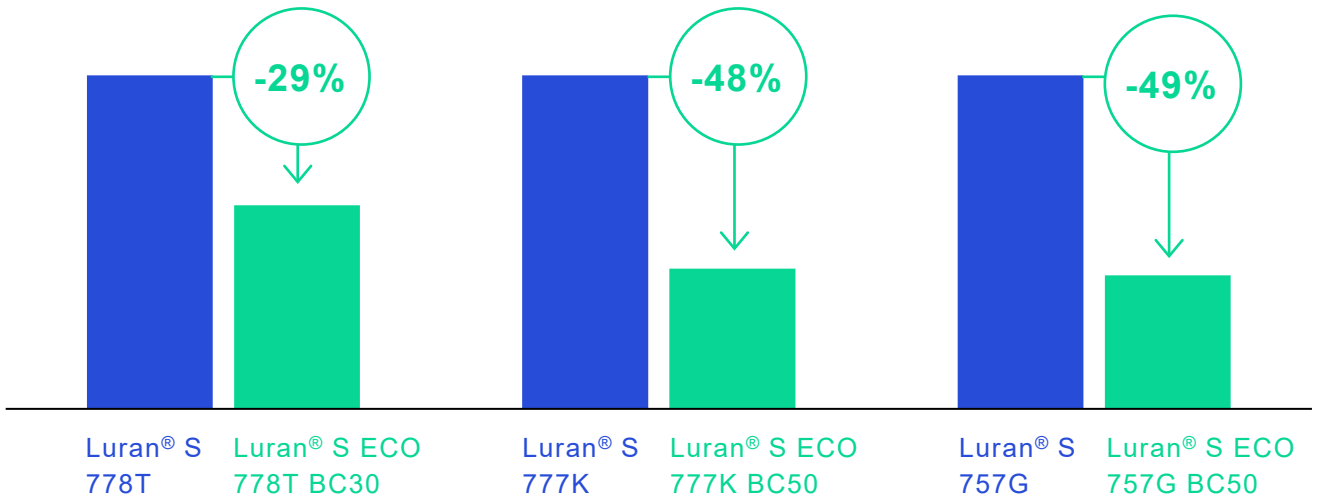
up to
50%
bio-attributed material
based on certified mass balance process

up to
49%
CO_2e reduction
compared to conventional Luran® S

Luran® S ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under the ISCC PLUS through an independent audit. Luran® S ECO is available with up to 50% bio-attributed material. This results in a carbon footprint reduction of up to 49% compared to fossil-based Luran® S.

Examples for emissions reduction*

Certificate Holder ISCC International Sustainability & Carbon Certification



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

Medical device housings

Made of bio-attributed Luran® S MED 797S BC40

up to

48%

CO_2e reduction

compared to conventional Luran® S MED 797S

CASE STUDY

Customer challenge

Medical device manufacturers need a polymer solution for device housings, like blood pressure monitors, that meets industry standards, offers exceptional mechanical properties, and maintains a high-quality surface. They also require a sustainable, renewable drop-in option with a reduced carbon footprint.

Our solution

Luran® S MED 797S BC40 SPF30, an acrylonitrile styrene acrylate (ASA) copolymer, is an injection moulding grade particularly suited for medical device housings due to its outstanding chemical resistance against alcohols. Its high impact strength, especially at room temperature (RT) and lower temperatures (5°C), enhances device protection, minimising the risk of cracks in cases of accidental drops. This grade complies with ISO 10993-5/10 regulations and includes a notification of change (NoC) commitment lasting up to 12 months*. Luran® S MED is certified under ISCC PLUS.

* with signed long term supply contract

LURAN® SC

Also available as

ECO

Luran® SC is a blend of acrylonitrile styrene acrylate copolymer and polycarbonate (ASA/PC) that offers high heat and enhanced impact resistance combined with adequate UV resistance. Luran® SC grades are primarily used in demanding interior and exterior automotive applications. Particularly suitable for light-coloured and unpainted applications in automotive interiors.

Further fields of application are housings for all kind of electronical and technical devices ranging from small & portable to large appliances.

Flame retardant products complete our portfolio, which meet UL 94 V-0 test standards.

Key applications

- **Automotive & truck exteriors**: radiator grills, trims, deflectors
- **Automotive & truck interiors:** overhead consoles, cabin parts
- **Electrical devices:** housings, switches
- **Other applications:** Shopping cart handles/ rails

Key properties

- UV resistance & colour fastness
- High heat resistance
- Excellent impact strength
- Long term property retention
- Flame retardant

LURAN® SC

			Polymer abbreviation	Method: injection moulding (M), extrusion (E)	Melt volume rate (260 °C / 5 kg)	Tensile modulus	Tensile strain at yield (23 °C)	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Heat deflection temperature HDT A (annealed 4h/80 °C; 1.8 MPa)	Vicat softening temperature VST/B/ 50	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eA	ISO 75-1/-2	ASTM D 1003	
		Unit			cm³/10 min	MPa	%	kJ/m²	kJ/m²	°C	°C	
High heat resistance	Impact strength	Luran S KR2861/1C	ASA, PC	M, E	14	2300	4.9	65	20	106	120	BC20
	Highest heat resistance	Luran S KR2863C	ASA, PC	M, E	20	2500	4.9	70	17	109	130	BC20
	Enhanced flow	Luran S KR2864C	ASA, PC	M, E	25	2600	4.6	60	11	105	120	BC25
	Highest impact strength	Luran S KR2868C	ASA, PC	M, E	20	2400	4.6	100	15	103	118	BC25
Medium heat resistance	Reduced PC content	Luran S KR2866C	ASA, PC	M, E	11	2600	3.4	40	9	102	110	BC40
	Flame retarding	Luran S KR2867C WU	ASA, PC	M	45	2600	4.0	16	6	96	105	-

BC = bio-circular

PCF savings up to -41%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

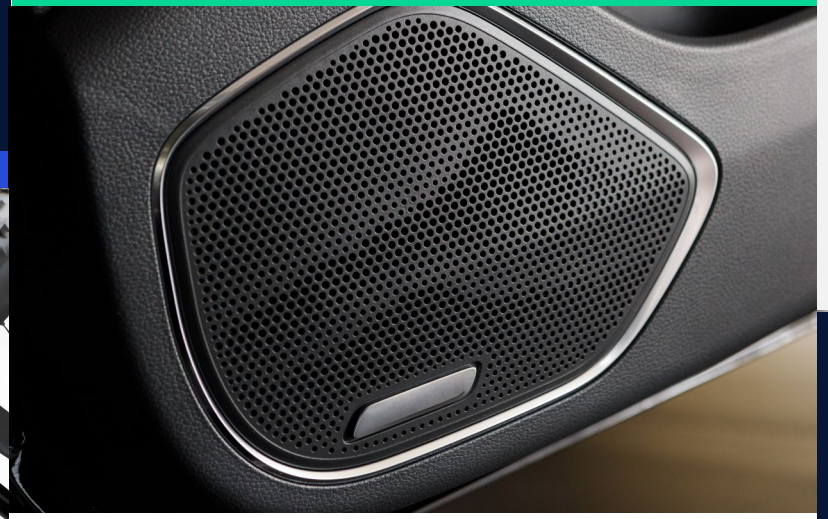
TERBLEND® N
TERBLEND® S

Also available as

ECO

Terblend® N (ABS/ PA blends) and **Terblend® S** (ASA/ PA blends) comprise a family of styrenics grades perfect for a wide range of uses across multiple industries. Terblend grades are a cost-effective solution for automotive interiors, featuring a matte surface finish that does not require painting. High flow and excellent impact properties enable even structurally complex parts, such as loudspeaker grills.

Terblend® S gets its unique property profile from the use of highly resistant ASA. As a result, it offers superior colour fastness for both interior applications and exterior parts exposed to direct sunlight.



Key applications

- Unpainted automotive interior parts
- Two-wheeler parts
- Gardening tools
- Protective equipment for sports & leisure
- Housings for electrical devices

Key properties

- Flowability
- Chemical resistance
- Good impact strength

TERBLEND® N
TERBLEND® S

			Polymer abbreviation	Method: injection moulding (M), extrusion (E)	Melt volume rate (240 °C / 10 kg)	Tensile modulus	Tensile strain at yield (23 °C)	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Heat deflection temperature HDT A (annealed 4h/80 °C; 1.8 MPa)	Vicat softening temperature , VST/B/ 50	Max. ECO material available
Test method					ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eA	ISO 75-1/-2	ASTM D 1003	
Unit					cm³/10 min	MPa	%	kJ/m²	kJ/m²	°C	°C	
High impact strength	General purpose	TERBLEND N NM-11	ASA/ PA	M, E	30	2000	3.5	65	15	85	102	BC40
	High flow, UV stabilised	TERBLEND N NM-21EF	ASA /PA	M, E	65	2100	3.1	70	12	86	110	BC30
	Superior UV resistance	TERBLEND S NM-31	ASA/ PA	M, E	60	2100	3.3	70	9	87	110	BC15
High heat, rigidity	UV stabilised	TERBLEND N NG-02EF	ASA/ PA GF8	M	40	3100	3	11	6	97	118	BC30
	Superior UV resistance	TERBLEND S SG-2EF	ABS/ PA GF8	M	35	3300	3	10	3.5	98	128	BC10
	Higher rigidity	TERBLEND N NG-04EF	ABS/ PA GF20	M	25	5300	4	14	8	108	130	BC25
	Highest rigidity	TERBLEND N NG-06EF	ABS/ PA GF30	M	13	7500	4	15	8	135	140	BC20

EF = enhanced flow + UV stabilised

PCF savings up to -36%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

TERLURAN®

Also available as

Terluran® is a high-quality emulsion acrylonitrile butadiene styrene (eABS) polymer, valued for its cost-effectiveness and superior quality. It's known for excellent processing versatility, ideal for both extrusion and injection moulding.

Terluran® features a bright, consistent intrinsic colour, ideal for self-colouring – especially where brilliant, glossy finishes are needed. Its easy processing delivers reliable results across manufacturing.

Key applications

- Household appliances
- Toys & sports
- Housings for electronic devices
- Sanitary applications
- Gardening equipment
- Automotive components

Key properties

- Flowability
- Good impact strength
- Self-colourability
- Low temperature toughness
- High gloss
- Dimensional stability

TERLURAN®

			Polymer abbreviation	Method: injection moulding (M), extrusion (E), blow moulding (B), compounding (C)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile strain at yield (23 °C)	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Heat deflection temperature HDT A (annealed 4h/80 °C; 1.8 MPa)	Vicat softening temperature VST/B/ 50	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eA	ISO 75-1/-2	ISO 306	
		Unit			cm³/10 min	MPa	%	kJ/m²	kJ/m²	°C	°C	
Injection moulding	Enhanced flow	TERLURAN GP-35	ABS	M	34	2300	2.4	19	7	92	95	BC100
	Impact strength	TERLURAN GP-22	ABS	M	19	2300	2.6	22	8	94	96	BC100 MR70
	High impact strength	TERLURAN HI-10	ABS	M, E, B, C	5.5	1900	2.8	35	13	93	90	BC100
Extrusion	High impact strength, high gloss	TERLURAN SP-6	ABS	E, B	5.5	1900	2.8	35	13	93	90	

BC = bio-circular, MR = mechanically- recycled

PCF savings up to -115%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

TERLURAN® ECO BC

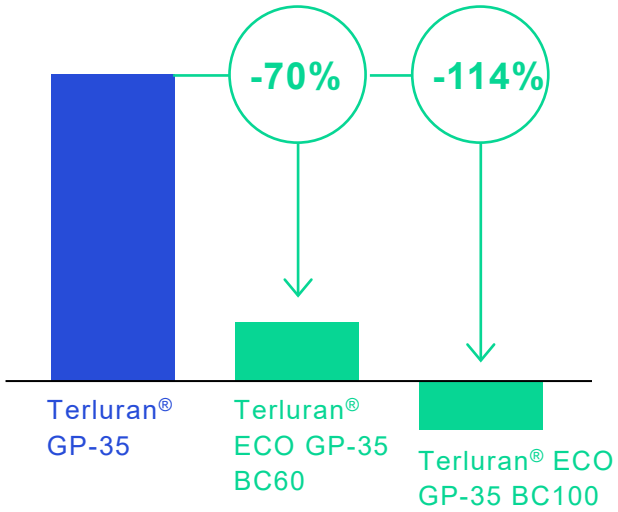
up to
100%
bio-attributed material
based on certified mass balance process

up to
115%
CO_2e reduction
compared to conventional Terluran®

Terluran® ECO BC is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Terluran® ECO BC is available with up to 100% bio-attributed material. This results in a carbon footprint reduction of up to 115% compared to fossil-based Terluran®.

Certificate Holder ISCC International Sustainability & Carbon Certification

Examples for emissions reduction*




© playmobil

Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

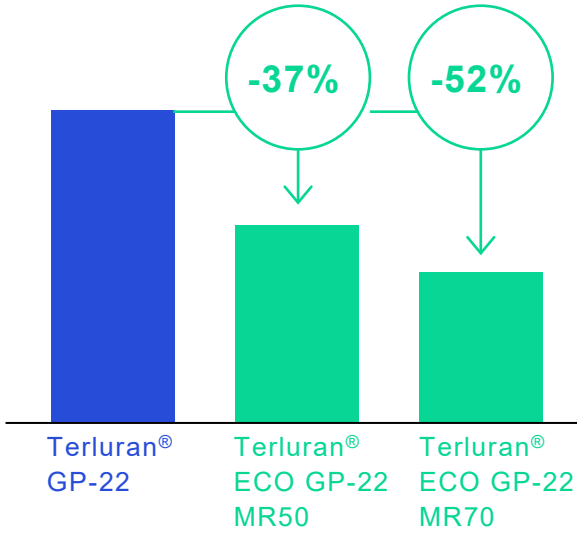
TERLURAN® ECO MR

up to
68%
post-consumer recycled content
based on certified post-consumer recycled content process

up to
52%
CO_2e reduction
compared to conventional Terluran®

Terluran® ECO MR is made using mechanically recycled feedstock, based on an advanced recycling process that ensures a purity level exceeding 99.9%. Certified to contain 100% post-consumer material, it is fully recyclable and offers a carbon footprint reduction compared to fossil-based materials.

Examples for emissions reduction



Drop-in solution

- Matching performance
- Suitable for many applications
- Available in black
- Truly circular

LUSTRAN®
(mABS)

Lustran® is an acrylonitrile butadiene styrene (mass ABS) copolymer, primarily targeted at the extrusion market. It offers a balanced mix of properties, including good impact resistance and surface finishes ranging from medium gloss to matte.

Lustran® is known for its versatility in extrusion applications, providing excellent performance in profile and sheet extrusion, edge-bands, and pipes.

Key applications

- Furniture edge bands
- Sheet extrusion
- Construction pipes & profiles
- Sanitary applications
- Suitcases & rooftop boxes
- Thermoformed parts for industrial vehicles

Key properties

- Good impact strength
- Self-colourability
- Low temperature toughness
- Extrusion
- Rigidity/ stiffness

LUSTRAN®
(mABS)

			Polymer abbreviation	Method: injection moulding (I), extrusion (E), blow moulding (B), blending (X)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Tensile stress at yield (23 °C)	Tensile strain at yield (23 °C)	Charpy notched impact strength (23 °C)	Vicat softening temperature, VST/B/ 50
		Test method			ISO 1133	ISO 527	ISO 527	ISO 527	ISO 179/1eA	ASTM D 1003
		Unit			$cm^3/10$ min	MPa	MPa	%	kJ/m^2	°C
Extrusion	High impact strength, medium gloss	LUSTRAN 552	mABS	I. E. B, X	6	2000	40	2.6	32	96
	Medium impact strength, medium gloss	LUSTRAN 532	mABS	I, E, X	8.5	2000	48	2.6	17	101
	Low gloss	LUSTRAN E112LG	mABS	I, E, X	7	1600	28	2.9	11	95

NOVODUR®

Also available as

eco

Novodur® is an acrylonitrile butadiene styrene (ABS) copolymer known for its balanced combination of properties, making it ideal for injection moulding applications. It offers good impact strength and dimensional stability, along with excellent processing ease.

Novodur® is particularly valued for its ability to produce visually appealing, colourful surface finishes, ensuring aesthetic flexibility in a variety of products.

Novodur® HD grades are optimised to meet the specific requirements of medical applications.

Key applications

- Automotive components
- Plated parts
- Household applications
- Shower heads
- Medical appliances/ housings
- Housings for electronic devices

Key properties

- Impact strength — Good impact strength
- Flowability — Flowability
- High gloss — High gloss
- Chemical resistance — Chemical resistance
- Electroplating — Electroplating
- For medical use — For medical use

NOVODUR®

			Polymer abbreviation	Method: injection moulding (M), extrusion (E)	Melt Volume Rate (220 °C / 10 kg)	Tensile modulus	Flexural strength, 23 °C	Charpy notched impact strength (23 °C/ -30°C)	Izod notched impact strength (23 °C/ -30°C)	Ball indentation hardness (H 358/ 30)	Vicat softening temperature VST/B/ 50	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 178	ISO 179/1eA	ISO 180/1A	ISO 2039-1	ISO 306	
		Unit			cm³/10 min	MPa	MPa	kJ/m²	kJ/m²	MPa	°C	
General injection moulding	Enhanced flow	NOVODUR P2H-AT	ABS/ rABS	M	37	2500	70	18/ 8	18 / 9	110	98	BC50 MR70
	Reinforced	NOVODUR P2HGV	ABS	M	3	5500	101	6/ 5	7/ 5	135	105	
	Impact strength	NOVODUR P2M-AT	ABS	M	20	2300	60	22/ 11	22/ 11	97	98	
Sensitive applications	Enhanced flow for medical use	NOVODUR HD M203FC	ABS	M	31	2400	70	16/ 7	16/ 7	107	99	BC100
	Enhanced flow, reinforced, for medical use	NOVODUR HD M203FC G3	ABS	M	16	5600	100	5/ 4.5	6 / 5	145	105	
Electroplating	Enhanced flow, impact strength	NOVODUR P2MC	ABS	M	25	2200	62	25/ 16	25 / 16	91	96	BC50
Extrusion	Thermoformability	NOVODUR E3TZ	ABS	E	8	2550	75	19/ 9	- / -	110	100	

BC = bio-circular, MR = mechanically- recycled

PCF savings up to -105%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

NOVODUR® ECO BC

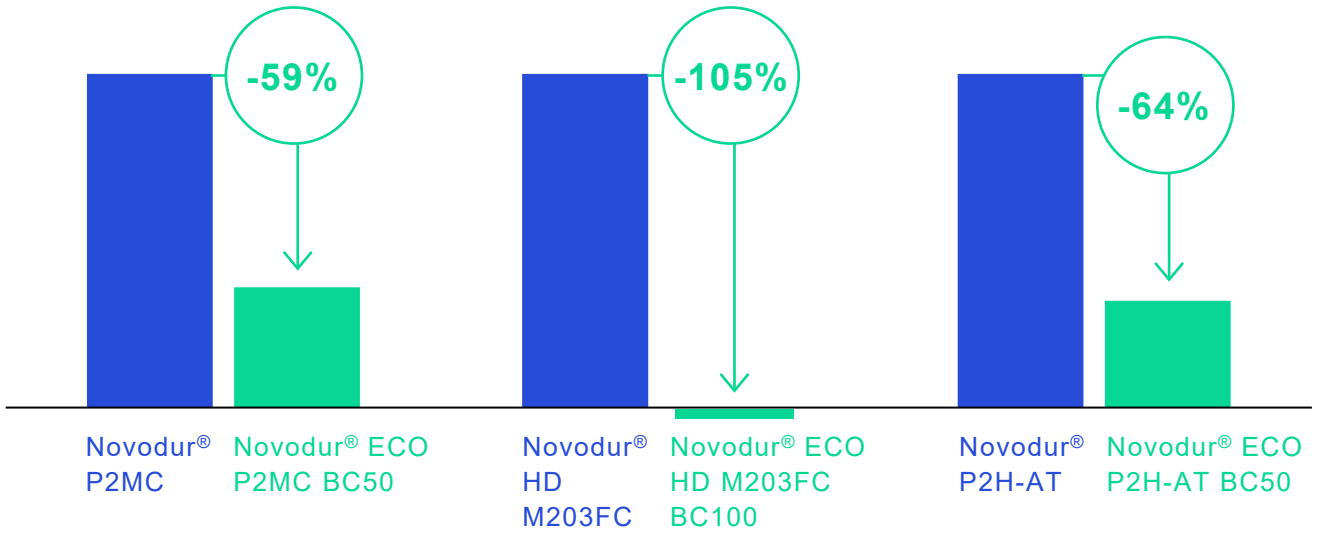
up to
100%
bio-attributed material
based on certified mass balance process

up to
105%
CO_2e reduction
compared to conventional ABS®

Novodur® ECO BC is made using renewable feedstock linked to biogenic waste, based on a mass balance process certified under ISCC PLUS. Novodur® ECO BC is available with up to 100% bio-attributed material. This results in a carbon footprint reduction of up to 105% compared to fossil-based Novodur®.

Examples for emissions reduction*

Certificate Holder ISCC International Sustainability & Carbon Certification



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

Chrome-plated sanitary fittings

Made with bio-attributed Novodur® ECO P2MC BC50

up to

59%

CO_2e reduction

compared to conventional ABS

CASE STUDY

Customer challenge

Manufacturers of sanitary fittings – such as shower heads, hand-held showers, and faucets – are increasingly seeking sustainable drop-in solutions that replicate the performance of conventional materials, reflecting a broader commitment to reducing their environmental impact.

Our solution

Novodur® ECO P2MC BC50, an acrylonitrile butadiene styrene (ABS) copolymer, is an injection moulding grade suitable for electroplating. It is made using renewable feedstock, based on a mass balance process certified under ISCC PLUS. This grade offers exceptional flowability, superior surface quality, and excellent impact strength, making it the optimal choice for premium sanitary fittings.

Figures are based on the data and methods valid at the time of calculation.
We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

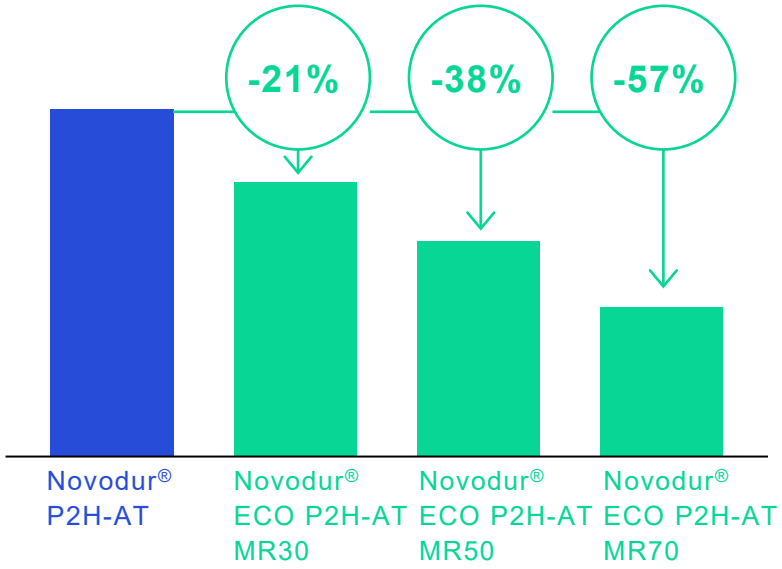
NOVODUR® ECO MR

up to
70%
post-consumer recycled content

up to
57%
CO_2e reduction
compared to conventional Novodur®

Novodur® ECO MR is made using mechanically recycled feedstock, based on an advanced recycling process that ensures a purity level exceeding 99.9%. Certified to contain 100% post-consumer material, it is fully recyclable and offers a carbon footprint reduction compared to fossil-based materials.

Examples for emissions reduction



Drop-in solution

- Matching performance
- Suitable for many applications
- Available in black colour
- Truly circular

POGS kids‘ headphones

Made with mechanically-recycled Novodur® ECO P2H-AT MR50

up to

38%

CO_2e reduction

compared to conventional ABS

CASE STUDY

© POGS

Customer challenge

POGS, a brand of children’s headphones, sought a sustainable, drop-in solution to increase recycled plastic content in its products. With a focus on creating eco-friendly, high-quality headphones tailored for kids, POGS aimed to enhance sustainability while maintaining the safety and durability essential for young listeners.

Our solution

Novodur® ECO P2H-AT MR50 was chosen for POGS kids‘ headphones due to its high-gloss finish, superior flowability, and stable colour retention, which align perfectly with the brand‘s quality and design standards. As a versatile injection moulding grade, it combines 50% post-consumer recycled ABS, supporting POGS‘ dedication to sustainability. The material‘s customisable colour service also allows fast and precise adjustments, ensuring both aesthetic appeal and durability essential for children’s headphones.

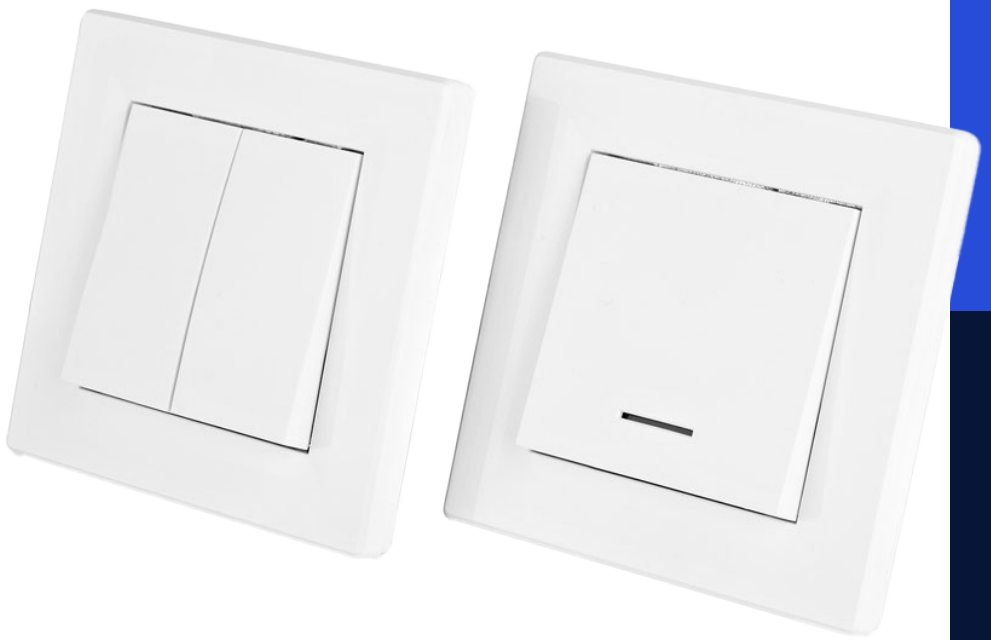
Electrical switches

Made with mechanically-recycled Novodur® ECO P2H-AT MR30 4MB

up to
21%
CO_2e reduction
compared to conventional ABS

CASE STUDY

Mechanical recycling
Lower carbon footprint
Easy-processing
Multicolour
Drop-in solution



Customer challenge

Manufacturer of electrical equipment are seeking an optimal solution for its electrical switches that ensures excellent flowability, impact resistance, and customisable colours. Additionally, there is an increasing priority on using eco-friendly materials.

Our solution

Novodur® ECO P2H-AT MR30 is a general-purpose injection moulding grade known for its high flowability and availability in white. It was selected for its high-gloss surface, excellent flowability, colour stability, and retention of mechanical properties. Additionally, it offers a comprehensive colour service for fast and precise customisation, making it ideal for applications requiring aesthetic and performance precision, like electrical switches.

NOVODUR® High Heat

Also available as

Novodur® High Heat is a high-performance acrylonitrile butadiene styrene (ABS) polymer, specifically engineered to meet stringent thermal stability requirements. It is widely recognised for its ease of processing and its ability to produce highly aesthetic, colourful surface finishes. This material excels in thermally stressed components, offering excellent performance under high temperatures.

Novodur® High Heat is also known for its superior adhesion properties, enabling moulded parts to be easily coated with durable finishes, making it the ideal material for a wide range of heat-resistant applications.

Key applications

- **Automotive exteriors:** mirror housings, light housings, front grills, trims, spoilers
- **Automotive interiors:** glove boxes, centre consoles, instrument panel trims, trims
- Electrical sockets

Key properties

- Heat resistance
- Flowability
- Dimensional stability
- Low emissions
- Electroplating

NOVODUR® High Heat

			Polymer abbreviation	Method: injection moulding (M)	Melt volume rate (220 °C / 10 kg)	Tensile modulus	Flexural strength, 23 °C	Charpy notched impact strength (23 °C/ -30°C)	Izod notched impact strength (23 °C/ -30°C)	Ball indentation hardness (H 358/ 30)	Vicat softening temperature VST/ B/ 50	Max. ECO material available
		Test method			ISO 1133	ISO 527	ISO 178	ISO 179/1eA	ISO 180/1A	ISO 2039-1	ISO 306	
		Unit			cm³/10 min	MPa	MPa	kJ/m²	kJ/m²	MPa	°C	
Medium heat	Enhanced flow, low emission, food contact	NOVODUR H605	ABS/ rABS	M	26	2400	72	15 / 7	15 / 7	111	102	MR30
High heat	Balanced property profile	NOVODUR HH-106	ABS/ rABS	M	7	2400	72	16 / 7	17 / 7	102	106	MR30
	Balanced property profile, reinforced	NOVODUR HH-106 G2	ABS	M	4	3600	97	6 / 4	6 / 4	106	107	
	Balanced property profile, low emission	NOVODUR H701	ABS	M	8	2100	65	22 / 12	22 / 12	95	105	
	Impact strength, low emission, PC modified	NOVODUR H801	ABS/ rABS	M	10.5	2400	77	35 / 14	32 / 14	109	106	MR40
Highest heat	High stiffness, high tensile strength	NOVODUR HH-112	ABS	M	5.5	2700	81	11 / 6	12 / 5	114	111	
Extrusion	Enhanced flow, low emission, low temp. ductility	NOVODUR ULTRA 4105	ABS/PC / rABS/PC	M	7	2400	73	23 / 10	23 / 10	110	109	
	Enhanced flow, low emission, low temp. ductility	NOVODUR ULTRA 4255	ABS/PC / rABS/PC	M	17	2100	70	55 / 55	50 / 48	97	110	MR30
Electroplating	Stiffness	NOVODUR ULTRA 4000PG	ABS/PC	M	7	2400	73	23 / 10	23 / 10	110	107	
Electroplating	Stiffness	NOVODUR ULTRA 4140PG	ABS/ PC	M	9	2100	72	41 / 33	39 / 32	92	106	

MR = mechanically- recycled

PCF savings up to -28%.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

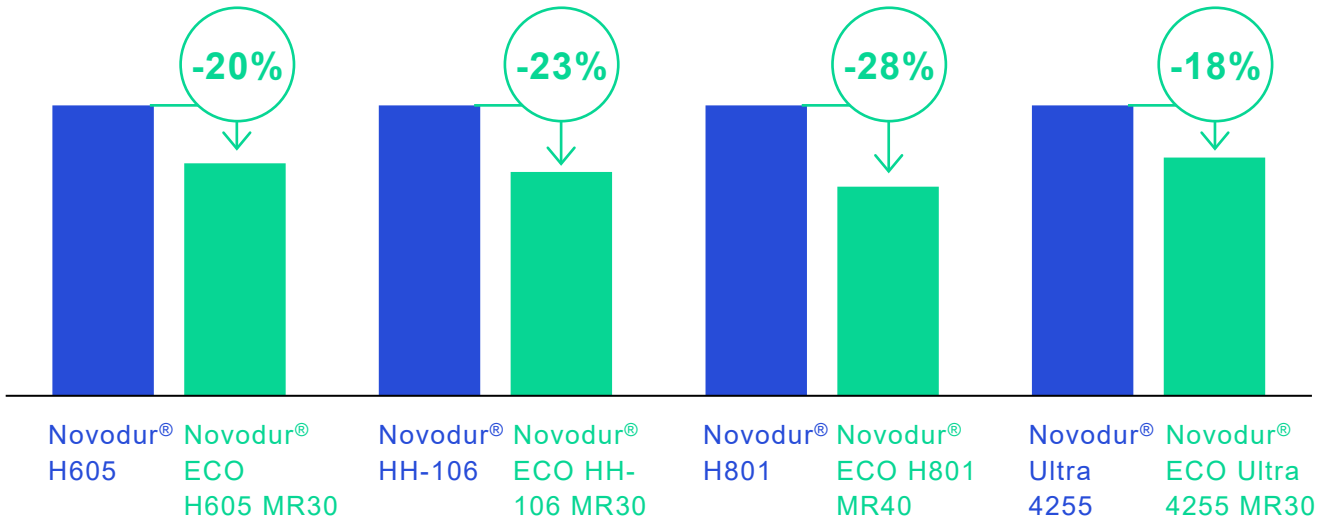
NOVODUR® ECO High Heat MR

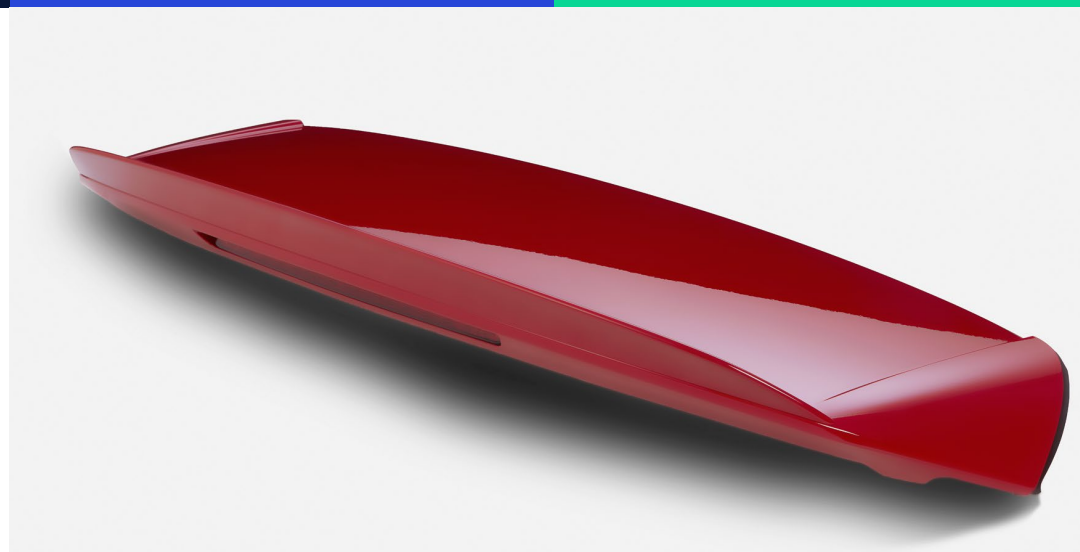
up to
40%
post-consumer recycled content

up to
28%
CO_2e reduction
compared to conventional Novodur® HH

Novodur® High Heat ECO MR is made using mechanically recycled feedstock, based on an advanced recycling process that ensures a purity level exceeding 99.9%. Certified to contain 100% post-consumer material, it is fully recyclable and offers a carbon footprint reduction compared to fossil-based materials.

Examples for emissions reduction





Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

Figures are based on the data and methods valid at the time of calculation.
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Rear light housings

Made with mechanically-recycled Novodur® ECO HH-106 MR30

up to

23%

CO_2e reduction

compared to conventional ABS

CASE STUDY

Customer challenge

Premium car manufacturers are looking for sustainable solutions and reliable partners to deliver a drop-in solution for rear light housings. The material has to match the performance of its fossil-based equivalent, such as heat resistance and impact strength.

Our solution

Novodur® ECO HH-106 MR30 is a high heat injection moulding grade providing a balanced property profile. Novodur® ECO HH products are modified to allow thermally stressed components to meet stringent stability requirements. Moulded parts can be coated easily and provide durable adhesion. HH-106 is the material of choice for numerous heat-resistant applications, such as rear light housings.

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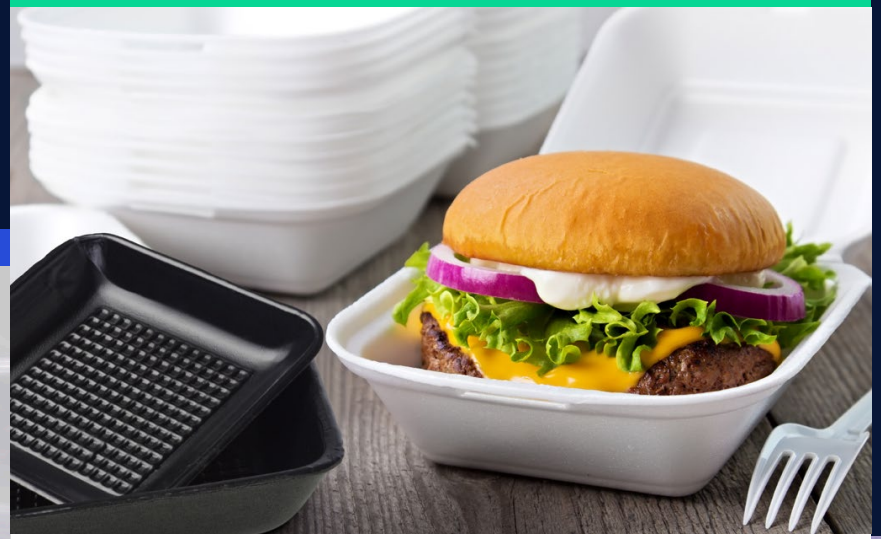
STYROLUTION® PS (GPPS)

Also available as

ECO

Styrolution® PS general-purpose polystyrene resins are transparent polymers ideal for injection moulding and extrusion applications. These resins offer easy processing with a wide processing window, making them suitable for a range of uses, including food service, packaging, refrigerator components, medical devices, diagnostic labware, and XPS insulation.

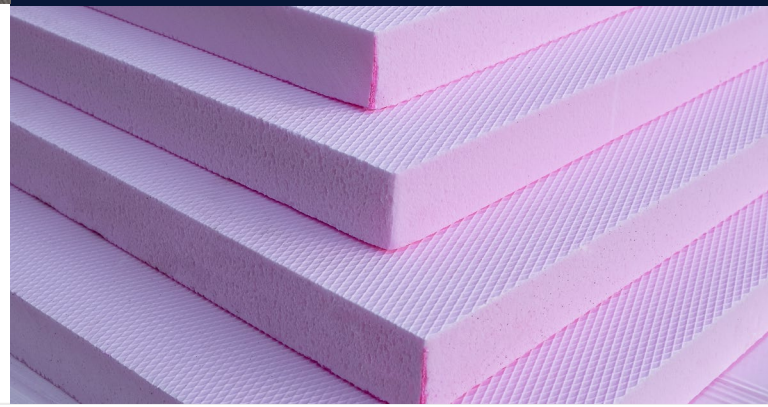


Key properties

- Transparency
- Heat resistance
- For medical use

Key applications

- Food packaging in blends with HIPS
- Food packaging in blends with SBC
- XPS packaging
- Refrigerator drawers
- Medical labware/ application
- Office articles
- XPS insulation boards



STYROLUTION® PS (GPPS)

				Polymer abbreviation	Method: injection moulding (M), extrusion (E),	Melt volume rate (200 °C / 5 kg)	Tensile modulus	Flexural strength, 23 °C	Vicat softening temperature, VST/B/50	Max. ECO material available
			Test method			ISO 1133	ISO 527	ISO 178	ISO 306	
			Unit			cm³/10 min	MPa	MPa	°C	
Transparency, colour consistency	Heat resistance	Good flow	STYROLUTION PS 124N/L	PS	M, E	12	3200	80	87	BC100 CC50
		Antistatic	STYROLUTION PS 153A	PS	M, E	17	3200	55	85	
	High heat resistance	Excellent foaming behaviour	STYROLUTION PS 153F	PS	E	7.5	3050	70	101	
			STYROLUTION PS 156F	PS	E	30	3200	50	-	
		Good mechanical strength	STYROLUTION PS 158N/L	PS	M, E	3.3	3300	103	101	
	Heat resistance	High mechanical strength	STYROLUTION PS 165N/L	PS	M, E	3.4	3300	86	89	
	High heat resistance	High mechanical strength	STYROLUTION PS 168N/L	PS	M, E	1.5	3300	106	101	

BC = bio-circular, CC = advanced recycling

PCF savings up to -125%*.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

STYROLUTION® PS ECO (GPPS)

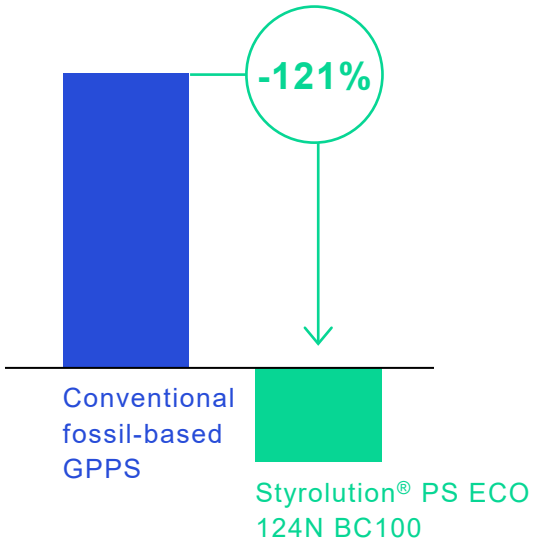
up to
100%
bio-attributed material
based on certified mass balance process

up to
125%
CO_2e reduction
compared to conventional Styrolution® PS*

Styrolution® PS ECO is made using renewable feedstock linked to biogenic waste, based on a mass balance certified under ISCC PLUS. Styrolution® PS ECO is available with up to 100% bio-attributed material. This results in a carbon footprint reduction of up to 125% compared to fossil-based Styrolution® PS.

Certificate Holder ISCC International Sustainability & Carbon Certification

Examples for emissions reduction*



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

Petri dishes

Made using Styrolution® PS ECO 158N BC100

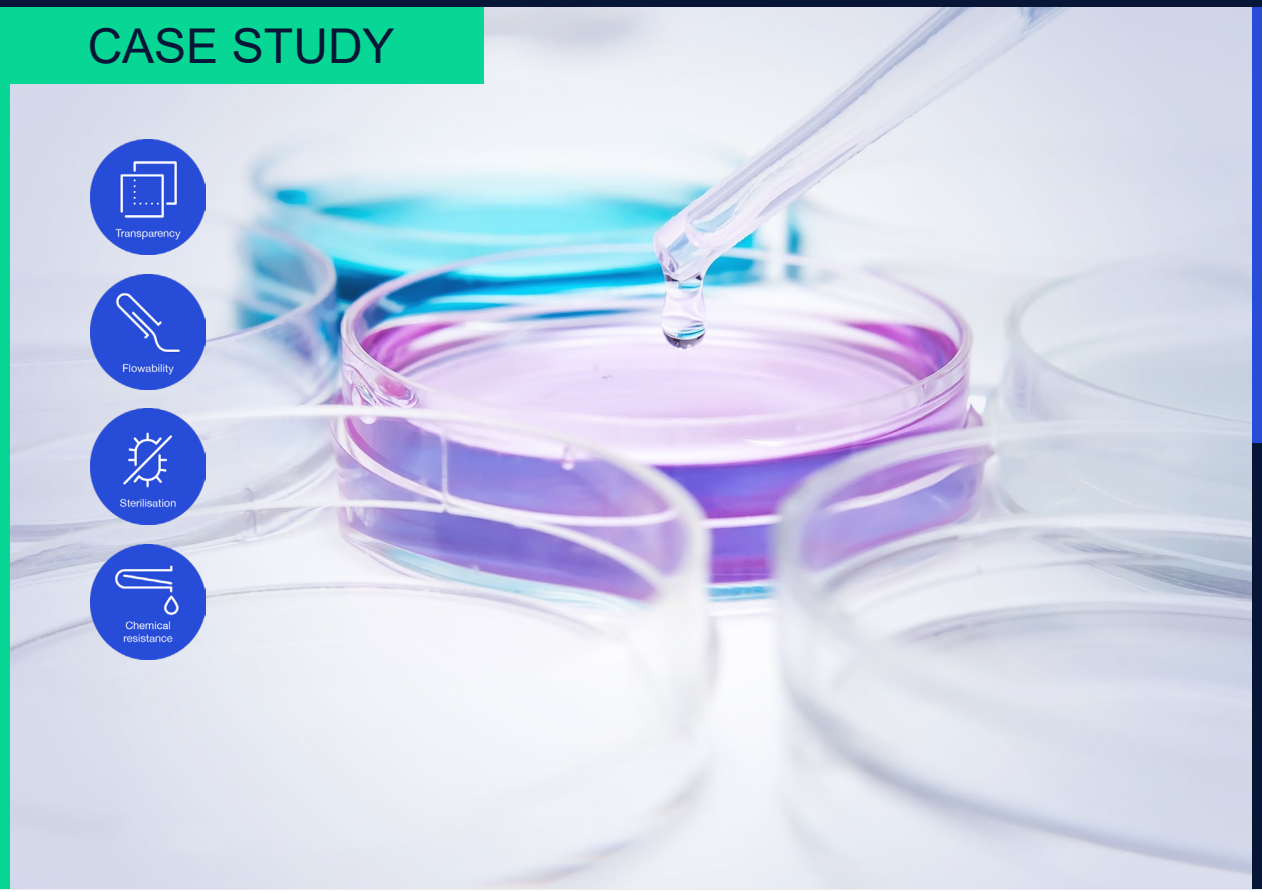
up to

123% CO_2e

CO_2e reduction

compared to conventional Styrolution® PS

CASE STUDY



Customer challenge

Pharmaceutical manufacturers producing petri dishes for healthcare and diagnostics need a polymer solution that delivers crystal-clear transparency and is sterilisable. They also require a sustainable, drop-in alternative with a reduced environmental footprint.

Our solution

Styrolution® PS ECO 158N BC100, a general-purpose polystyrene from our ECO portfolio, is designed for demanding labware applications. It combines high optical clarity with excellent flowability for efficient, consistent manufacturing. The material can be sterilised and ensures reliable performance in healthcare environments. It is certified under ISCC PLUS.

STYROLUTION® PS (HIPS)

Also available as

Styrolution® PS impact-modified polystyrene resins offer a versatile range of robust grades designed to meet diverse customer requirements. These resins are ideal for both extrusion and injection moulding processes, delivering excellent performance across a wide range of applications.

Whether for single-use yoghurt cups or durable housings and refrigerator liners, Styrolution® PS HIPS resins offer exceptional impact strength, chemical resistance, and durability for the most demanding applications.

Key properties

- Good impact strength
- Extrusion
- Chemical resistance
- Injection moulding

Key applications

- Food packaging
- Food packaging in blends with GPPS
- Refrigerator inner liners & door liners
- Refrigerator parts (injection-moulded)
- Toys
- Office supplies

STYROLUTION® PS (HIPS)

				Polymer abbreviation	Method: injection moulding (M), extrusion (E),	Melt volume rate (200 °C / 5 kg)	Tensile modulus	Elongation at Break (MD)	Charpy notched impact strength (23 °C)	Vicat softening temperature, VST/B/50	Max. ECO material available
			Test method			ISO 1133	ISO 527	ISO 527	ISO 179/1eA	ISO 306	
			Unit			cm³/10 min	MPa	%	kJ/m²	°C	
Impact resistance	Injection moulding grade	High flow	STYROLUTION PS 454N	PS	M	14	2200	25	8	82	BC90 CC50
	Extrusion grade	Fat resistance	STYROLUTION PS 485N	PS	M, E	4	1650	35	10	90	
		Thermo-formability	STYROLUTION PS 486N	PS	M, E	3.9	1800	35	12	90	
	Heat resistance	High flow	STYROLUTION PS 495N	PS	M, E	9.5	2000	40	9	89	
	Extrusion grade	Stress cracking resistance	STYROLUTION PS ESCRIMO	PS	M, E	3.4	1550	50	15	89	
Mechanically recycled	Extrusion grade	Food contact, white	STYROLUTION PS ECO 440 FC MR100 WT	rPS	M, E	6	2000	32	8	90	MR100
		Non-food contact	STYROLUTION PS ECO 445 MR100	rPS	M, E	6	2000	32	8	90	

BC = bio-circular, CC = advanced recycling, MR = mechanical-recycled post-consumer

PCF savings up to -105%*.

PCF statements available on request.
Figures are based on the data and methods valid at the time of calculation. We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

STYROLUTION® PS ECO BC (HIPS)

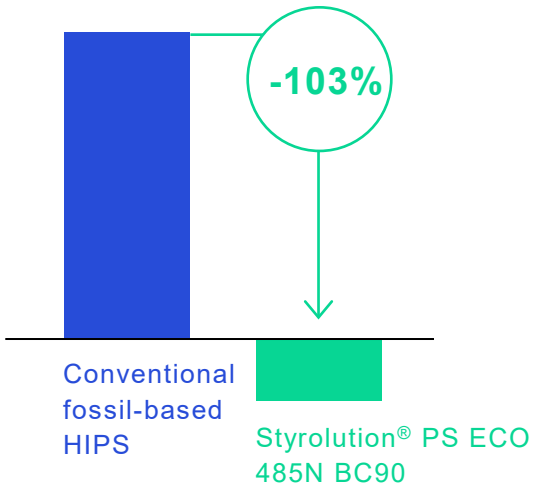
up to
90%
bio-attributed material
based on certified mass balance process

up to
105%
CO_2e reduction
compared to conventional Styrolution® PS*

Styrolution® PS ECO BC is made using renewable feedstock linked to biogenic waste, based on a mass balance certified under the ISCC PLUS through an independent audit. Styrolution® PS ECO BC is available with up to 100% bio-attributed material. This results in a carbon footprint reduction of up to 105% compared to fossil-based Styrolution® PS.

Certificate Holder ISCC International Sustainability & Carbon Certification

Examples for emissions reduction*



Drop-in solution

- Identical performance
- Ready for immediate deployment
- Regulatory compliant
- Seamless technological compatibility

*PCF calculated with our TÜV Rheinland–certified PCF tool. Figures are based on data and methods valid at the time of calculation. Results may vary slightly as data is refreshed. No warranties or liability assumed.

INEOS | Styrolution

3D Duropolymer wall panels

Made with bio-attributed Styrolution® PS ECO 485N BC90 & Styrolution® PS ECO 158N BC100

up to

123% CO_2e

CO_2e reduction

compared to conventional Styrolution® PS*

CASE STUDY

© Orac

Customer challenge

Orac, a leading innovator in decorative interior design, aimed to develop a new line of 3D Duropolymer wall panels that are 100% ISCC-certified bio-circular via mass balance approach, reflecting their commitment to environmental responsibility. The challenge was to find a material that met these eco-friendly criteria while maintaining the high quality and aesthetic appeal that Orac's customers expect, without compromising on design or functionality.

Our solution

Orac chose Styrolution® PS ECO 485N BC90 and 158N BC100 for their 3D Duropolymer wall panels. The new Duropolymer product range combines recycled materials with bio-based raw materials. A white primer is applied to the wall panels to achieve a stucco appearance and ensure adhesion of the paint, which is customisable for end users. Both Styrolution® PS ECO grades and Orac's product line are certified under ISCC PLUS. This solution aligns with Orac's sustainability goals while delivering high-quality performance and aesthetic appeal.

Figures are based on the data and methods valid at the time of calculation.
We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

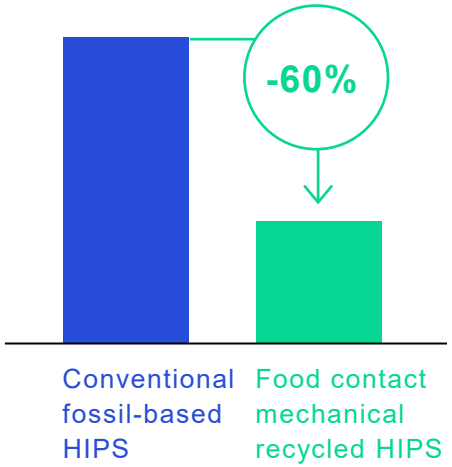
STYROLUTION® PS ECO MR (HIPS)

up to
100%
post-consumer recycled content
based on certified post-consumer recycled content process

up to
60%
CO_2e reduction
compared to conventional Styrolution® PS*

Styrolution® PS ECO MR 440FC MR100 WT is made using mechanically recycled feedstock, based on an advanced recycling process that ensures a purity level exceeding 99.9%. Containing 100% post-consumer material, it is fully recyclable and offers a reduced carbon footprint compared to fossil-based materials.

Examples for emissions reduction



Drop-in solution

- Identical performance
- Suitable for many applications
- Regulatory compliant
- Truly circular

Yoghurt cups

Made with mechanically-recycled Styrolution® PS ECO 440FC MR100

up to

60%

CO_2e reduction

compared to conventional Styrolution® PS*

CASE STUDY

Customer challenge

Dairy producers require a sustainable product to replace fossil-based polystyrene in yoghurt cups, where polystyrene's unique processing properties are not compromised. The challenge is to deliver a circular, food-grade alternative meeting performance and safety requirements that fits existing production processes.

Our solution

Styrolution® PS ECO 440FC MR100 from INEOS Styrolution is a mechanically recycled polystyrene made from 100% post-consumer waste and fully recyclable. It delivers performance on par with fossil-based polystyrene and complies with food contact regulations. The advanced recycling process delivers over 99.9% purity, ensuring food-grade quality. This innovative solution is the product of choice for sustainable yoghurt cups.

Figures are based on the data and methods valid at the time of calculation.
We disclaim all warranties and liability; updated figures may vary slightly as data is refreshed.

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www.ineos.com/styrolution

Scan to learn more about INEOS Styrolution

February 2026