



# STYRENIC SPECIALTIES

Versatility. Performance. Endless possibilities.

**INEOS**  
**STYROLUTION**

Driving Success. Together.



# BEAUTIFUL PERFORMERS

INEOS Styrolution offers the world's largest styrenic specialties portfolio, reliable global supply and the commitment to collaborate with our customers to even create new grades with the exact properties required. Innovative, high-performance styrenic specialties from INEOS Styrolution offer clear material advantages, from greater product differentiation to improved processing efficiency.

## TRANSPARENT

Aesthetics matter. Transparent styrenic specialties from INEOS Styrolution are known for their outstanding surface quality and water-clear transparency, enabling the creation of beautiful products that are pleasing to the senses, durable and safe to use. Tough and brilliant, our transparent specialties help improve your bottom line through optimal processibility and outstanding quality.

## ENHANCED

Good design sells. Enhanced styrenic specialties from INEOS Styrolution are increasingly used by designers and manufacturers to unlock innovative potential. The superior surface quality, proven performance and high versatility makes creating attractive products easier. Add value to your brand with products that retain their superior appearance and performance while also delivering cost, time and energy savings.



Explore the possibilities of STYRENIC SPECIALTIES

TRANSPARENT

ENHANCED

STIFFNESS

DIMENSIONAL STABILITY  
HEAT RESISTANCE  
CHEMICAL RESISTANCE

**LURAN®**  
**LURAN® HH**

**LURAN** IS INEOS STYROLUTION'S STYRENE ACRYLONITRILE COPOLYMER (SAN)  
**LURAN HH** IS INEOS STYROLUTION'S ALPHA-METHYLSTYRENE ACRYLONITRILE (AMSAN) COPOLYMER

06 – 07

08 – 09

IMPACT RESISTANCE

TRANSPARENCY  
FLOWABILITY  
FOR MEDICAL USE

**NAS®**

**NAS** IS INEOS STYROLUTION'S TRANSPARENT STYRENE METHYL METHACRYLATE (SMMA) COPOLYMER

10 – 11

TRANSPARENCY  
CHEMICAL RESISTANCE  
RIGIDITY, STIFFNESS  
FOR MEDICAL USE

**TERLUX®**

**TERLUX** IS INEOS STYROLUTION'S METHYL METHACRYLATE ACRYLONITRILE BUTADIENE STYRENE (MABS) COPOLYMER

12 – 13

TRANSPARENCY  
FLOWABILITY

**ZYLAR®**

**ZYLAR** IS INEOS STYROLUTION'S METHYL METHACRYLATE BUTADIENE STYRENE (MBS) POLYMER

14 – 15

HIGH FLOW  
EXCELLENT CHEMICAL RESISTANCE  
TRANSPARENCY

**CLEARLUX®**

**CLEARLUX** IS INEOS STYROLUTION'S METHYL METHACRYLATE ACRYLONITRILE BUTADIENE STYRENE (MABS) COPOLYMER

16 – 17

TRANSPARENCY  
LOW TEMPERATURE TOUGHNESS  
FLOWABILITY

**STYROLUX®**

**STYROLUX** IS INEOS STYROLUTION'S THERMOPLASTIC TRANSPARENT & IMPACT RESISTANT STYRENE BUTADIENE BLOCK COPOLYMER (SBC)

18 – 19

TRANSPARENCY  
RIGIDITY, STIFFNESS  
HIGH GLOSS

**K-RESIN®**

**K-RESIN** IS INEOS STYROLUTION'S LATEST ADDITION TO THERMOPLASTICS STYRENE BUTADIENE BLOCK COPOLYMER (SBC)

20 – 21

LOW TEMPERATURE TOUGHNESS  
FLOWABILITY  
TRANSPARENCY

**STYROFLEX®**

**STYROFLEX** IS INEOS STYROLUTION'S THERMOPLASTIC ELASTOMER, A STYRENE BUTADIENE BLOCK COPOLYMER (SBC) WITH TAILOR-MADE ARCHITECTURE

22 – 23

ENHANCED STYRENIC SPECIALTIES

24 – 25

IMPACT RESISTANCE (ABS)

FOR MEDICAL USE  
CHEMICAL RESISTANCE  
FLOWABILITY & HIGH GLOSS  
ELECTROPLATING

**NOVODUR®**

**NOVODUR** IS INEOS STYROLUTION'S SPECIALTY ACRYLONITRILE BUTADIENE STYRENE (ABS) COPOLYMER

26 – 27

ELECTROPLATING  
HEAT RESISTANCE  
DIMENSIONAL STABILITY  
LOW EMISSION & FLOWABILITY

**NOVODUR® HIGH HEAT**

**NOVODUR HIGH HEAT** IS INEOS STYROLUTION'S ENHANCED HEAT RESISTANCE SPECIALTY ACRYLONITRILE BUTADIENE STYRENE (ABS) COPOLYMER

28 – 29

UV RESISTANCE (ASA)

IMPACT STRENGTH & FLOWABILITY  
CHEMICAL RESISTANCE  
HEAT RESISTANCE  
DIMENSIONAL STABILITY

**LURAN® S**

**LURAN S** IS INEOS STYROLUTION'S ACRYLONITRILE STYRENE ACRYLATE (ASA) COPOLYMER

30 – 31

LONG TERM PROPERTY RETENTION  
IMPACT STRENGTH  
FLOWABILITY  
HEAT RESISTANCE

**LURAN® SC**

**LURAN SC** IS INEOS STYROLUTION'S BLEND OF ACRYLONITRILE STYRENE ACRYLATE COPOLYMER AND POLYCARBONATE (ASA/PC)

32 – 33

PHYSICAL AND MECHANICAL STRENGTH

FLOWABILITY  
DIMENSIONAL STABILITY  
LOW GLOSS  
CHEMICAL RESISTANCE

**TERBLEND® N/S**

**TERBLEND N** IS INEOS STYROLUTION'S ACRYLONITRILE BUTADIENE STYRENE COPOLYMER BLEND WITH POLYAMIDE (ABS/PA)  
**TERBLEND S** IS INEOS STYROLUTION'S ACRYLONITRILE STYRENE ACRYLATE COPOLYMER BLEND WITH POLYAMIDE (ASA/PA)

34 – 35



AUTOMOTIVE



ELECTRONICS



HOUSEHOLD



CONSTRUCTION



HEALTHCARE



TOYS, SPORTS  
& LEISURE



PACKAGING

TRANSPARENT



LURAN®  
LURAN® HH



NAS®



TERLUX®



ZYLAR®



CLEARLUX®



STYROLUX®



K-RESIN®



STYROFLEX®

ENHANCED



NOVODUR®



NOVODUR®  
HIGH HEAT



LURAN® S



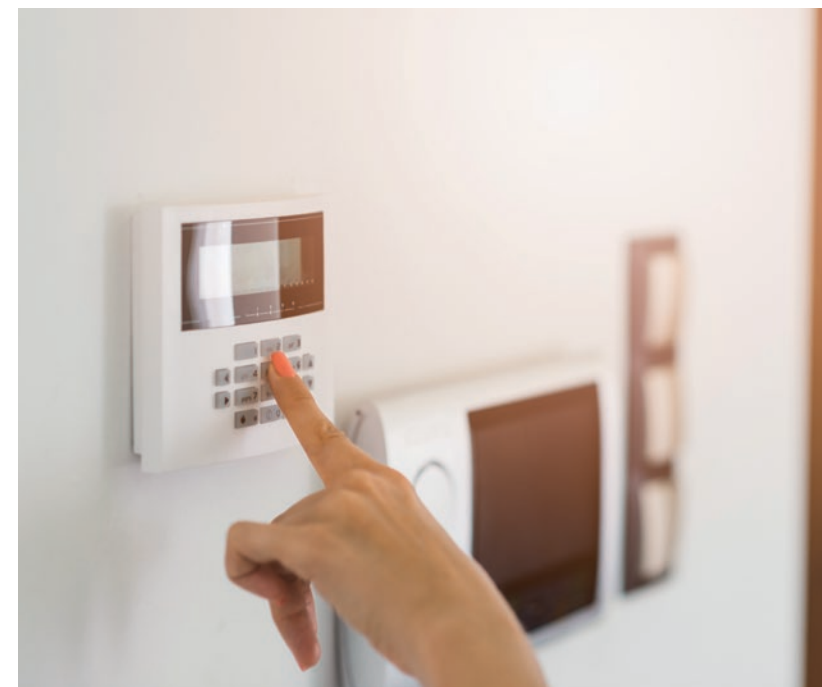
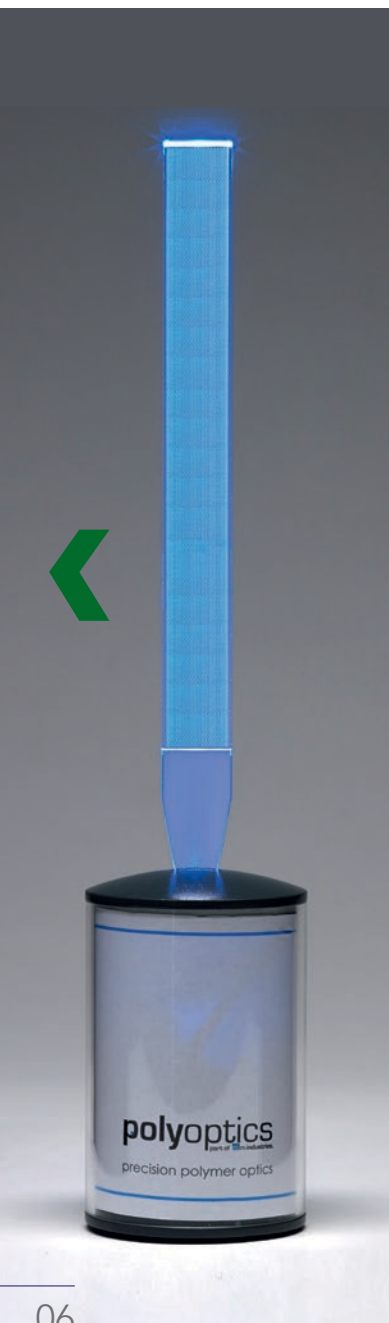
LURAN® SC



TERBLEND®  
N/S

# TRANSPARENT SPECIALTIES

EXPLORE THE POSSIBILITIES



WHAT IS **YOUR** TRANSPARENT SPECIALTIES APPLICATION?





# LURAN® LURAN® HH

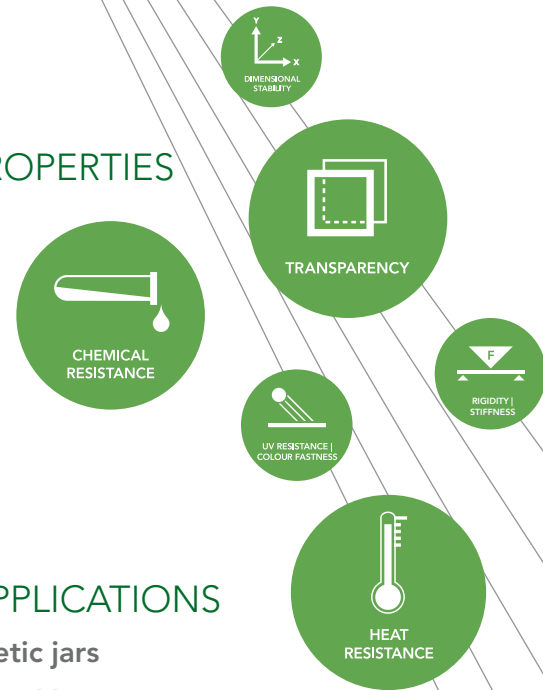
Discover LURAN's best-in-class chemical resistance and color consistency.



INEOS Styrolution's styrene acrylonitrile copolymers (SAN) offer excellent surface quality and many other outstanding properties with a broad selection of grades designed for injection molding and extrusion applications.

- LURAN® LURAN® HH
- NAS®
- TERLUX®
- ZYLAR®
- CLEARLUX®
- STYROLUX®
- K-RESIN®
- STYROFLEX®
- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND® N/S

## KEY PROPERTIES



## KEY APPLICATIONS

- › Cosmetic jars
- › Industrial batteries
- › Shower trays
- › Mixers and blenders
- › Exterior automotive applications

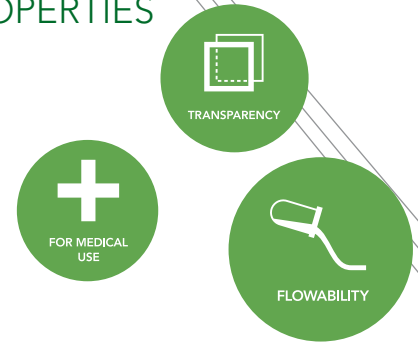
Crystal clear available	General purpose	Ultra high flow
	Excellent transparency, light natural color	Easy flow
Chemical resistance		Easy flow
		High impact strength
Full HD Service Package		Easy flow
	Enhanced dimensional stability and heat resistance	Glass fiber reinforced
		Ultra high rigidity
		High gloss, increased UV resistance

TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL					THERMAL			
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B)	Melt Volume Rate (220 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Flexural strength, 23 °C	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Heat deflection temperature, HDT A (annealed 4h/80 °C; 1.8 MPa)	Heat deflection temperature, HDT B (annealed 4 h/80 °C; 0.45 MPa)	Vicat softening temperature, VST/B/50
	ISO 1183	ISO 62		ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 178	ISO 179/1eA	ISO 179/1eU	ISO 75-1/-2	ISO 75-1/-2	ISO 306	
UNIT	kg/m³	%		cm³/10 min	°C	°C	%	MPa	MPa	%	MPa	kJ/m²	kJ/m²	°C	°C	°C	
<b>LURAN 338L</b>	SAN	1080	0.20	M	40.0	200-250	40-80	0.30-0.70	3500	-	2.00	-	1.70	14.5	86	98	105
<b>LURAN 348Q</b>	SAN	1080	0.20	M	19.0	200-250	40-80	0.30-0.70	3600	70	2.50	115	1.50	14	86	99	105
<b>LURAN 358N</b>	SAN	1080	0.20	M	22.0	220-260	40-80	0.30-0.70	3700	72	3.00	120	2.00	16	86	99	106
<b>LURAN 368R</b>	SAN	1080	0.20	M, E	10.0	220-260	40-80	0.30-0.70	3700	75	3.00	125	2.00	18	88	100	106
<b>LURAN 378P</b>	SAN	1080	0.30	M	20.0	220-260	40-80	0.30-0.70	3800	75	3.50	135	2.00	19	89	101	107
<b>LURAN 388S</b>	SAN	1080	0.30	M, E	7.0	220-260	40-80	0.30-0.70	3800	79	4.00	140	2.50	21	90	102	107
<b>LURAN HD 20</b>	SAN	1080	0.20	M	22.0	220-260	40-80	0.30-0.70	3700	72	3.00	-	2.00	16	86	99	106
<b>LURAN 378P G7</b>	SAN GF	1360	0.25	M, E	4.0	220-260	40-80	0.10	12000	110	2.00	150	4.00	17	104	108	109
<b>LURAN 378P G10</b>	SAN GF	1500	0.20	M, E	2.5	220-260	40-80	0.10	16500	-	0.80	-	5.00	11	104	108	111
<b>LURAN HH-120 SPF 50</b>	AMSAN	1080	0.30	M, E	11.5	220-270	40-80	0.30-0.70	3900	70	3.00	135	1.60	22	98	107	114
<b>LURAN HH-120</b>	AMSAN	1080	0.30	M, E	7.0	220-270	40-80	0.30-0.70	3900	79	3.00	135	2.00	20	104	110	120

# NAS<sup>®</sup>

INEOS Styrolution's best-in-class transparent styrene acrylic copolymers are a premium choice for applications demanding a strong, stiff, water-clear plastic. NAS is hydrophobic and provides excellent thermal stability, very good alcohol resistance, and virtually no molded-in stress. NAS is compliant with FDA and EU food contact regulations as well as medical compliances USP Cl. VI & ISO 10993.

## KEY PROPERTIES



General purpose	Water clear clarity
	Enhanced flow and clarity
	Increased toughness
	Excellent clarity, low haze, available with UV package

## KEY APPLICATIONS

- > Water filters
- > Food boxes
- > Point-of-purchase displays
- > Diabetes devices and packaging, e.g. injection pens
- > Pens (barrel)

TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL				THERMAL			OPTICAL				
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B)	Melt Volume Rate (220 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Flexural strength, 23 °C	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Heat deflection temperature, HDT A (annealed 4h/80 °C; 1.8 MPa)	Heat deflection temperature, HDT B (annealed 4 h/80 °C; 0.45 MPa)	Vicat softening temperature, VST/B/50	Light transmission (4 mm thickness)	Haze (4 mm thickness)	Refractive Index (nD)
	ISO 1183	ISO 62		ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 178	ISO 179/1eA	ISO 179/1eU	ISO 75-1/-2	ISO 75-1/-2	ISO 306	ASTM D 1003	ASTM D 1003	ISO 489	
UNIT	kg/m <sup>3</sup>	%		cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	MPa	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>	°C	°C	°C	%	%	%	
NAS 21	SMMA	1080	0.10	M, E, B	24.0	200-240	30-60	0.20-0.60	3300	60	2.5	100	1.50	12	80	90	98	91.3	0.30	1.57
NAS 30	SMMA	1090	0.15	M, E, B	30.0	200-240	30-50	0.20-0.60	3300	60	2.5	100	1.50	12	80	90	98	91.4	0.30	1.56
NAS 90	SMMA	1070	0.10	M, E, B	16.0	200-240	30-50	0.20-0.60	3100	60	2.3	100	1.50	13	75	83	90	91.0	0.30	1.56
NAS XC	SMMA	1100	0.17	M, E, B	24.40	210-243	32-60	-	3400	-	-	101	1.40	20.40	99	-	98	93.0	0.30	1.54

Did you know NAS combines high stiffness with superior processability?



# TERLUX®

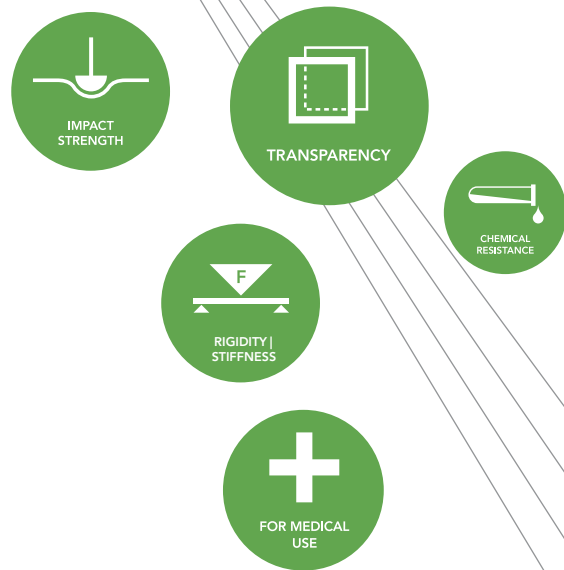
INEOS Styrolution's transparent ABS polymers can be used to create particularly brilliant visual effects such as very deep colors, pearly or sparkle effects and are also easy to print on. This combination of properties and ease of processing make Terlux an optimal choice for upscale and design-oriented applications. The Terlux HD grades are optimized to meet the specific requirements of medical applications.

Try TERLUX for its impact strength and outstanding chemical resistance.



- LURAN® LURAN® HH
- NAS®
- TERLUX®**
- ZYLAR®
- CLEARLUX®
- STYROLUX®
- K-RESIN®
- STYROFLEX®
- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND® N/S

## KEY PROPERTIES



## KEY APPLICATIONS

- > Infusion systems, e.g. connectors, stopcocks
- > Cosmetic packaging
- > Homeware
- > Housings
- > Toys, sports and leisure

	PROPERTIES				PROCESSING					MECHANICAL					THERMAL			OPTICAL		
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B)	Melt Volume Rate (220 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Hardness, ball indentation	Heat deflection temperature, HDT A (annealed 4h/80 °C; 1.8 MPa)	Heat deflection temperature, HDT B (annealed 4 h/80 °C; 0.45 MPa)	Vicat softening temperature, VST/B/50	Light transmission (4 mm thickness)	Haze (4 mm thickness)	Refractive Index (nD)
TEST METHOD	ISO 1183	ISO 62		ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eU	ISO 2039-1	ISO 75-1/-2	ISO 75-1/-2	ISO 306	ASTM D 1003	ASTM D 1003	ISO 489	
UNIT		kg/m <sup>3</sup>	%		cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>	MPa	°C	°C	°C	%	%	%
General purpose	MABS	1080	0.35	M, E, B	2.0	230-260	50-75	0.40-0.70	2000	48	4	5	120	70	90	94	93	89	<3.00	1.54
Easy flow					8.0	230-260	50-75	0.40-0.70	1900	42	4	5	110	75	87	93	87	89	<3.00	1.54
High impact	MABS	1080	0.35	M, E, B	2.0	230-260	50-75	0.40-0.70	2000	48	4	10	180	70	90	94	93	89	<3.00	1.54
					6.0	230-260	50-75	0.40-0.70	1800	39	4	8	150	76	87	93	85	89	<3.00	1.54
Health-care*	MABS	1080	0.35	M, E, B	2.0	230-260	50-75	0.40-0.70	2000	48	4	5	120	70	90	94	93	89	<3.00	1.54
					8.0	230-260	50-75	0.40-0.70	1900	42	4	5	110	75	87	93	87	89	<3.00	1.54

\*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



# ZYLAR®

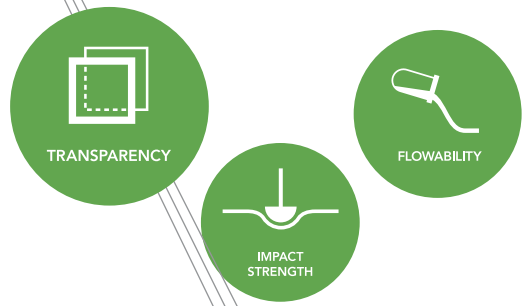
INEOS Styrolution's clear impact modified styrene acrylic copolymers offer practical toughness, excellent clarity, and superior processing over competitive materials such as polycarbonate and copolyesters. In spiral flow tests, Zylar resins flow the same distance as polycarbonate at significantly lower temperatures. This leads to higher productivity, lower energy consumption and less molded-in stress. Zylar meets USP class VI and has good resistance to many detergents and cleaning solutions.

ZYLAR is the clear choice for excellent flow in injection molding.



- LURAN® LURAN® HH
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- ZYLAR®**
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- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND® N/S

## KEY PROPERTIES



High transparency	Good scratch resistance	Good balance of stiffness and impact strength	Chemical resistance
		Highest transparency, highest scratch resistance, highest stiffness, moderate impact strength	Highest impact strength, good transparency

## KEY APPLICATIONS

- › Cosmetic packaging, e.g. lids
- › Medical devices
- › Sanitary housings
- › Domestic appliances, e.g. vacuum cleaner housings
- › Shaving systems
- › Transparent toys
- › Pens (clips)

TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL				THERMAL			OPTICAL				
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B)	Melt Volume Rate (200 °C / 5 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Hardness, ball indentation	Heat deflection temperature, HDT A (annealed 4h/180 °C)	Heat deflection temperature, HDT B (annealed 4h/180 °C; 1.8 MPa)	Vicat softening temperature, VST/B/50 (4 mm thickness)	Light transmission (4 mm thickness)	Haze (4 mm thickness)	Refractive Index (nD)
	ISO 1183	ISO 62		ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 179/1eA	ISO 179/1eU	ISO 2039-1	ISO 75-1/-2	ISO 75-1/-2	ISO 306	ASTM D 1003	ASTM D 1003	ISO 489	
UNIT	kg/m <sup>3</sup>	%		cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>	MPa	°C	°C	°C	%	%	%	
<b>ZYLAR 245</b>	MBS	1050	0.05	M	4.5	200-240	30-55	0.20-0.60	2300	37	20	2.00	15	-	72	85	78	90	2.00	1.57
<b>ZYLAR 550</b>	MBS	1050	0.05	M	5.0	200-240	30-55	0.20-0.60	2100	28	50	4.00	n.b.	60	70	81	73	90	2.00	1.57
<b>ZYLAR 650</b>	MBS	1050	0.05	M	4.0	200-240	10-60	0.20-0.60	2100	26	40	2.00	25	-	-	-	72	90	2.00	1.57
<b>ZYLAR 960</b>	MBS	1050	0.05	M	6.0	200-240	10-60	0.20-0.60	1640	28	120	16.00	n.b.	35	67	78	60	89	2.00	1.56

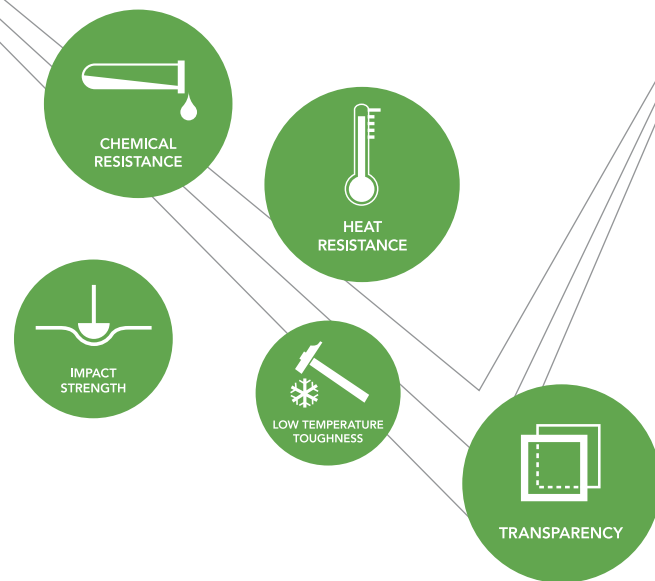
n.b. = no break

# CLEARLUX®

Clearlux 816 is a methyl methacrylate acrylonitrile butadiene styrene polymer. The grade offers a unique combination of excellent flow, high impact strength, heat resistance and good colorability.

- LURAN®  
LURAN® HH
- NAS®
- TERLUX®
- ZYLAR®
- CLEARLUX®**
- STYROLUX®
- K-RESIN®
- STYROFLEX®
- NOVODUR®
- NOVODUR®  
HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND®  
N/S

## KEY PROPERTIES



High flow, excellent chemical resistance, high impact, excellent transparency

	PROPERTIES			PROCESSING			MECHANICAL			THERMAL			OPTICAL						
	Polymer abbreviation	Density	Water Absorption, Saturated at 23 °C	Method: injection molding (M), extrusion (E), blow molding (B)	Melt Volume Rate (220 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Charpy notched impact strength (23 °C)	Hardness, ball indentation	Heat deflection temperature, HDT A (annealed 4h/80 °C; 1.8 MPa)	Heat deflection temperature, HDT B (annealed 4 h/80 °C; 0.45 MPa)	Vicat softening temperature, VST/B/50	Light transmission (4 mm thickness)	Haze (4 mm thickness)	Refractive Index (nD)
TEST METHOD		ISO 1183	ISO 62		ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 179/1eA	ISO 2039-1	ISO 75-1/-2	ISO 75-1/-2	ISO 306	ASTM D 1003	ASTM D 1003	ISO 489
UNIT		kg/m <sup>3</sup>	%		cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	kJ/m <sup>2</sup>	MPa	°C	°C	°C	%	%	%
<b>CLEARLUX 816</b>	MABS	1080	0.70	M	16.0	220-250	44-70	0.40-0.70	1900	42	20	8	75	87	93	87	-	2.00	1.54

CLEARLUX is the grade of choice due to its key properties, such as excellent chemical resistance and high flow.



## KEY APPLICATIONS

- › Toys, sports & leisure
- › Pens and pencils
- › Housings
- › Cosmetic packaging

# STYROLUX®



STYROLUX combines clarity, rigidity and toughness in a cost-effective solution.

INEOS Styrolution's crystal-clear thermoplastic styrene butadiene copolymers (SBC) offer an impressive combination of high transparency, brilliance and impact resistance. The good miscibility of Styrolux and polystyrene allows adjustment to the desired toughness, while at the same time reducing material costs. Styrolux can be extruded, thermoformed and injection molded into a variety of high-quality products.

## KEY APPLICATIONS

- › Food packaging
- › Labeling and twist films
- › Shrink film
- › Flooring systems
- › Medical devices, e.g drip chambers

## KEY PROPERTIES



Injection molding grade	Excellent stiffness & clarity
Grades for injection molding, extrusion thermoforming & blown film	Universal grade, good printability
	Highest transparency, blown-film extrusion
Grade for sheet extrusion & compounding	Sheet extrusion
	High impact strength, excellent blending with GPPS
Drip chamber grade	High clarity, ductile and impact resistant
Shrink sleeves grades	Improved toughness, low gels
	Improved natural shrinkage, low gels
	Designed for blending with Styrolux S + T, improved shrinkage, low gels
	Improved stiffness, low gels

TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL					THERMAL			OPTICAL			
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B) (200 °C / 5 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Hardness Shore D	Heat deflection temperature HDT A (annealed 4h/80 °C; 1.8 MPa)	Heat deflection temperature HDT B (0.45 MPa)	Vicat softening temperature, VST/B/50	Light transmission (4 mm thickness)	Haze (4 mm thickness)	Refractive Index (nD)	
UNIT		kg/m <sup>3</sup>	%	cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>		°C	°C	°C	%	%	-	
STYROLUX 656C	SBC	1020	0.07	M	16.0	180-250	30-50	0.30-1.00	1800	35	20	2.00	25	72	67	77	63	90	2.00	1.58
STYROLUX 684D	SBC	1010	0.07	M, E, B	11.0	180-250	30-50	0.30-1.00	1500	26	160	4.00	n.b.	68	65	75	59	89	2.00	1.58
STYROLUX 3G46	SBC	1010	0.07	M, E, B	12.0	180-250	30-50	0.30-1.00	1550	27	180	3.00	>80	65	58	75	51	90	2.00	1.57
STYROLUX 693D	SBC	1010	0.07	E	12.0	180-250	20-40	0.30-1.00	-	22	260	5.00	>80	64	59	72	48	89	2.00	1.57
STYROLUX 3G55	SBC	1010	0.07	E	14.0	180-250	30-50	0.30-1.00	900	15	>300	85.00	n.b.	58	51	62	35	89	6.00	1.57
STYROLUX 4G60	SBC	1020	0.07	M, E, B	15.0	180-250	30-50	0.30-1.00	900	14	200	4.00	>80	67	50	64	45	90	2.00	1.57
STYROLUX T	SBC	1020	0.07	E	12.0	180-250	30-50	0.30-1.00	1200	25	250	2.00	80	83	-	-	46	89	2.00	1.57
STYROLUX T1	SBC	1020	0.07	E	12.0	180-250	30-50	0.30-1.00	1100	25	250	-	>80	83	50	55	48	91	1.50	1.57
STYROLUX M	SBC	1020	0.07	E	12.0	180-250	30-50	0.30-1.00	1700	30	-	3.00	-	83	62	76	60	90	1.50	1.57
STYROLUX S	SBC	1020	0.07	E	12.0	180-250	30-50	0.30-1.00	2900	-	2	2.00	20	83	-	-	64	90	2.00	<1.58

n.b. = no break

- LURAN® LURAN® HH
- NAS®
- TERLUX®
- ZYLAR®
- CLEARLUX®
- STYROLUX®**
- K-RESIN®
- STYROFLEX®
- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND® N/S



# K-RESIN®

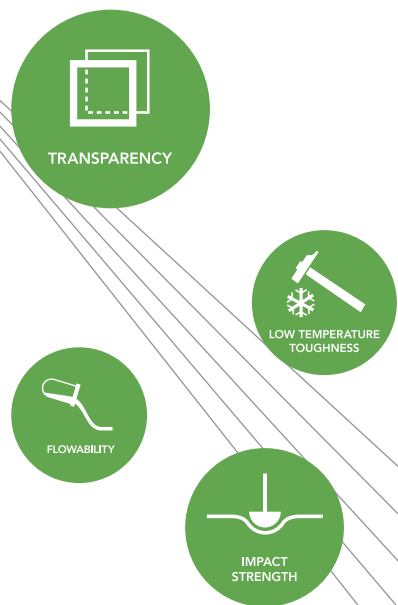
As a premier clear resin, K-Resin SBC is known for its unique blend of sparkling clarity, impact toughness, stiffness and exceptional gloss. K-Resin SBC is used in various applications ranging from packaging and toys to medical components and displays for more than 40 years.

Discover K-RESIN's sparkling clarity, impact toughness, stiffness and exceptional gloss.



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- LURAN® SC
- TERBLEND® N/S

## KEY PROPERTIES



## KEY APPLICATIONS

- › Medical devices
- › Food packaging
- › Labeling & twist films
- › Shrink film
- › Flooring systems

Injection molding grade	High stiffness	<b>K-RESIN KR01</b>
	High melt flow	<b>K-RESIN BK10</b>
Grades for injection molding, extrusion & film applications	High surface gloss	<b>K-RESIN KR03</b>
	Good stiffness	<b>K-RESIN DK11</b>
Grades for blending and compounding	Good surface gloss	<b>K-RESIN KR38</b>
	High surface gloss	<b>K-RESIN KR40</b>
	Very high toughness	<b>K-RESIN KR20</b>

TEST METHOD	PROPERTIES					PROCESSING				MECHANICAL					THERMAL			OPTICAL		
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B), blending (X)	Melt Volume Rate (200 °C / 5 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Hardness Shore D	Heat deflection temperature, HDT A (annealed 4h) 80 °C; 1.8 MPa	Heat deflection temperature, HDT B (0.45 MPa)	Vicat softening temperature, VST/B/50	Light transmission (4 mm thickness)	Haze (4 mm thickness)	Refractive Index (nD)
UNIT		kg/m <sup>3</sup>	%		cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>		°C	°C	°C	%	%	-
	SBC	1020	0.07	M	8.0	180-250	30-50	0.30-1.00	1600	33	15	2.00	27	70	65	78	65	92	1.00	1.57
	SBC	1020	0.07	M	14.0	180-250	30-50	0.30-1.00	1500	25	180	2.00	-	63	61	76	53	92	0.90	1.57
	SBC	1020	0.07	M, E, B	7.5	180-250	30-50	0.30-1.00	1500	25	170	2.00	n.b.	63	61	76	53	92	2.00	1.57
	SBC	1020	0.07	M, E, B	7.5	180-250	30-50	0.30-1.00	1500	25	170	2.00	n.b.	63	61	76	53	92	2.00	1.57
	SBC	1010	0.07	X	10.0	180-250	30-50	0.30-1.00	900	15	180	50.00	-	55	55	73	50	92	0.90	1.56
	SBC	1010	0.07	X	9.0	180-250	30-50	0.30-1.00	750	15	300	4.00	-	55	46	56	40	92	0.90	1.56
	SBC	1010	0.07	X	6.0	180-250	30-50	0.30-1.00	700	10	>500	50.00	-	47	50	60	-	92	0.90	1.56

n.b. = no break

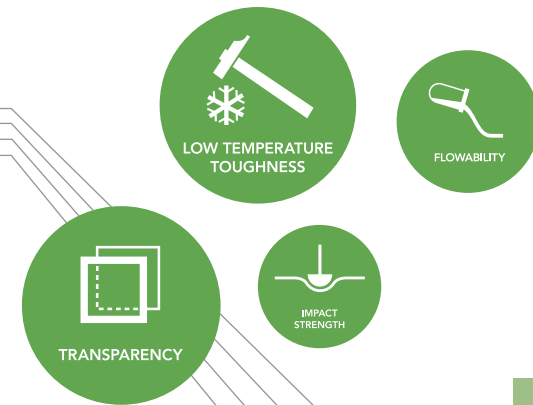
# STYROFLEX®

STYROFLEX combines excellent transparency, toughness, elasticity and processability.



INEOS Styrolution's styrene-butadiene block copolymer (SBC) with the properties of a thermoplastic elastomer (S-TPE), suitable for extrusion (including both blown and cast film) and injection molding. Characterized by a combination of high resilience and toughness, optical clarity and process stability, Styroflex also offers good printability and good adhesion to many different polymers. In elastic film applications, Styroflex provides excellent stretch recovery, superior transparency, puncture resistance, as well as high oxygen and moisture permeability. It is also employed as a high performance additive to increase toughness and e.g. the stress cracking resistance of styrenic and olefinic polymers.

## KEY PROPERTIES



## KEY APPLICATIONS

- > Flexible films
- > Medical tubes
- > Stretch hoods
- > Impact-modified compounds

TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL							THERMAL		OPTICAL				
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E); blow molding (B)	Melt Volume Rate (200 °C / 5 kg)	Melt temperature range	Mold temperature range	Mold shrinkage	Tensile modulus	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at break, 23 °C	Flexural Strength, 23 °C	Charpy notched impact strength (23 °C)	Charpy unnotched impact strength (23 °C)	Izod unnotched impact strength (23 °C)	Izod notched impact strength (23 °C)	Vicat softening temperature, VST/A/120	Light transmission (4 mm thickness)	Haze (4 mm thickness)	Refractive Index (nD)	
General purpose	Water clear clarity	<b>STYROFLEX 2G66</b>	SBC	998	0.07	M, E	13.0	170-240	30-50	0.30-1.00	120	26	>500	4	n.b.	n.b.	-	-	35	80	5.00	1.56
Low emission	Water clear clarity	<b>STYROFLEX 2G66 LE</b>	SBC	998	0.07	M, E	13.0	170-240	30-50	0.30-1.00	120	26	>500	4	n.b.	n.b.	-	-	35	80	5.00	1.56
Medical tubes	Water clear clarity	<b>STYROFLEX 4G80</b>	SBC	980	0.07	M, E	18.0	170-240	30-50	-	50	-	>500	-	>80.00	>80.00	-	-	38	81	18.00	-
Low gels	Water clear clarity	<b>STYROFLEX PG77</b>	SBC	990	0.07	M, E	14.0	190-220	-	-	-	-	450	-	-	-	-	-	35	91	1.00	-

n.b. = no break

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- K-RESIN®
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- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND® N/S



# ENHANCED SPECIALTIES

DISCOVER THE VERSATILITY



WHAT IS YOUR ENHANCED SPECIALTIES APPLICATION? [➤](#)







# NOVODUR®

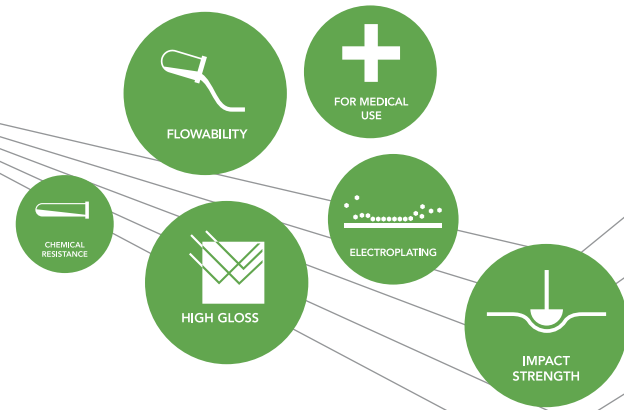
INEOS Styrolution's specialty acrylonitrile butadiene styrene (ABS) copolymers feature grades with a well-balanced mix of properties for injection molding, including good impact strength and dimensional stability. Novodur is easy to process and creates a highly aesthetic, colorful surface appearance. The versatile product line is available pre-colored as well as natural and contains products with many unique features to fit the most demanding product applications, including medical and food contact.

Ask us how NOVODUR can be tailored to your needs.

## KEY APPLICATIONS

- › Automotive plated parts
- › Vacuum cleaner housings
- › Shower heads
- › Medical appliances such as inhaler housings
- › Housings for electronic devices

## KEY PROPERTIES



TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL						THERMAL						
	Polymer abbreviation	Density	Method: injection molding (M); extrusion (E); blow molding (B)	Melt Volume Rate (220 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at yield / at break, 23 °C	Flexural strength, 23 °C	Charpy unnotched impact strength (23 °C / -30 °C)	Charpy notched impact strength (23 °C / -30 °C)	Izod notched impact strength (23 °C / -30 °C)	Ball indentation hardness (H 358 / 30)	Heat deflection temperature HDT A (annealed 4h/80 °C; 1,8 MPa)	Heat deflection temperature (annealed)***, HDT B (0.45 MPa)	Vicat softening temperature VST/B/50	Vicat softening temperature, VST/B/120		
UNIT	ISO 1183	ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 178	ISO 179/1eU	ISO 179/1eA	ISO 180/1A	ISO 2039-1	ISO 75-1/-2	ISO 75-1/-2	ISO 306	ISO 306				
General injection molding	Enhanced flow	NOVODUR P2H-AT	ABS	1050	M	37.0	230-260	60-80	0.40-0.70	2500	44	2.1 / >15.0	70	100 / 80	18 / 8	18 / 9	110	93	97	98	100
	Very high flow	NOVODUR P4XF	ABS	1050	M	60.0	230-260	60-80	0.40-0.70	2400	43	2.2	70	105 / 100	14 / 7	14 / 7	105	90	94	96	98
	Reinforced	NOVODUR P2HGV	ABS	1160	M	3.0	230-260	60-80	0.20-0.40	5500	74	- / 2.0	101	18 / 20	6 / 5	7 / 5	135	102	106	105	107
	Impact strength	NOVODUR P2M-AT	ABS	1040	M	20.0	230-260	60-80	0.40-0.70	2300	39	2.1 / >15.0	60	180 / 120	22 / 11	22 / 11	97	93	97	98	100
	Chemical resistance	NOVODUR P3H-AT	ABS	1050	M	13.0	230-260	60-80	0.40-0.70	2500	48	2.4 / >15.0	71	180 / 90	20 / 11	21 / 11	108	92	96	98	100
Sensitive applications	Enhanced flow	NOVODUR HD M203FC	ABS	1050	M	31.0	230-260	60-80	0.40-0.70	2400	46	2.6 / >15.0	70	110 / 90	16 / 7	16 / 7	107	94	98	99	101
	Enhanced flow, reinforced	NOVODUR HD M203FC G3	ABS	1190	M	18.0	230-260	60-80	0.20-0.40	5600	70	1.7 / -	100	20 / n.b.	5 / -	6 / -	145	104	107	105	106
	Chemical resistance	NOVODUR HD 15	ABS	1050	M	15.0	230-260	60-80	0.40-0.70	2300	48	2.5 / 10.0	-	170 / 90	14 / 6	16 / 6	102	93	99	100	102
Food contact	Food contact	NOVODUR M210TF	ABS	1050	M	32.0	230-260	60-80	0.40-0.70	2450	46	2.6 / >15.0	65	120 / 100	16 / 7	16 / 7	106	94	98	99	101
	Drinking water contact	NOVODUR SBM-90	MBS	1100	M	13.0	230-250	60-80	0.20-0.70	2000	40	2.5 / >15.0	55	130 / -	15 / -	14 / 6	88	90	95	90	91
Extrusion	High impact strength	NOVODUR E401	ABS	1020	M, E	5.0	210-260	60-80	0.50-0.80	1900	40	2.5 / >15.0	60	210 / 170	32 / 19	32 / 19	82	94	100	99	101
Electroplating	Enhanced flow, impact strength	NOVODUR P2MC	ABS	1030	M	25.0	230-260	60-80	0.20-0.70	2200	40	2.4 / >15.0	62	n.b. / 150	25 / 16	25 / 16	91	94	96	96	98

n.b. = no break

- LURAN® LURAN® HH
- NAS®
- TERLUX®
- ZYLAR®
- CLEARLUX®
- STYROLUX®
- K-RESIN®
- STYROFLEX®
- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND® N/S



# NOVODUR® HIGH HEAT

NOVODUR HIGH HEAT is the material of choice for heat resistance and aesthetics.

INEOS Styrolution's specialty acrylonitrile butadiene styrene (ABS) copolymers feature grades with a well-balanced mix of properties for injection molding, including good impact strength, dimensional stability and heat resistance. Novodur High Heat is easy to process and creates a highly aesthetic, colorful surface appearance. The versatile product line is available pre-colored as well as natural and contains products with many unique features to fit the most demanding product applications.

## KEY APPLICATIONS

- › Automotive exterior: mirror housings, light housings, front grills, trims
- › Automotive interior: glove boxes, center consoles, instrument panel trims, trims
- › Vacuum cleaner housings, coffee machines
- › Electrical sockets

## KEY PROPERTIES



TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL						THERMAL						
	Polymer abbreviation	Density	Method: injection molding (M), extrusion (E), blow molding (B)	Melt Volume Rate (220 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield / at break, 23 °C	Tensile strain at yield / at break, 23 °C	Flexural strength, 23 °C	Charpy unnotched impact strength (23 °C / -30 °C)	Charpy notched impact strength (23 °C / -30 °C)	ISO notched impact strength (23 °C / -30 °C)	Ball indentation hardness (H 358 / 30)	Heat deflection temperature, HDT A (annealed 4h/80 °C; 1,8 MPa)	Heat deflection temperature, Vicat (annealed)***, HDT B (0-45 MPa)	Vicat softening temperature, VST/B/50	Vicat softening temperature, VST/B/120		
UNIT		kg/m <sup>3</sup>		cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	MPa	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>	MPa	°C	°C	°C	°C		
Medium heat																					
	Chemical resistance, excellent paintability	NOVODUR H604	ABS	1040	M	10.0	230-260	60-80	0.50-0.70	2400	45 / -	2.6 / >15.0	70	180 / 110	21 / 12	21 / 12	110	98	102	102	104
	Enhanced flow, low emission, food contact	NOVODUR H605	ABS	1050	M	26.0	230-260	60-80	0.40-0.60	2400	47 / -	2.5 / >15.0	72	90 / 80	15 / 7	15 / 7	111	98	102	102	104
High heat	Balanced property profile	NOVODUR HH-106	ABS	1050	M	7.0	230-260	60-80	0.40-0.70	2400	51 / -	3.0 / 9.0	72	190 / 100	16 / 7	- / -	102	99	107	106	108
	Balanced property profile, reinforced	NOVODUR HH-106 G1	ABS	1070	M	5.0	230-260	60-80	0.40-0.70	3000	51 / -	3.0 / 9.0	72	190 / 100	12 / 6	- / -	102	99	107	107	108
	Balanced property profile, reinforced	NOVODUR HH-106 G2	ABS	1100	M	3.5	230-260	60-80	0.40-0.60	3600	58 / -	- / 3.0	97	24 / 20	6 / 4	- / -	-	99	108	107	109
	Balanced property profile, low emission	NOVODUR H701	ABS	1040	M	8.0	230-260	60-80	0.50-0.80	2100	41 / -	2.7 / >15.0	65	180 / 120	22 / 12	22 / 12	95	99	105	105	107
	Enhanced flow	NOVODUR H702	ABS	1040	M	14.0	230-260	60-80	0.40-0.70	2500	46 / -	2.6 / >15.0	73	100 / 90	19 / 9	19 / 9	106	99	104	104	106
	Impact strength, low emission	NOVODUR H801	ABS/PC	1070	M	10.5	240-260	60-80	0.40-0.70	2400	49 / -	3.0 / >15.0	77	220 / 160	35 / 14	32 / 14	109	99	106	106	108
Highest heat	Stiffness	NOVODUR H802	ABS	1050	M	9.5	230-260	60-80	0.40-0.70	2700	51 / -	2.8 / >15.0	80	100 / 80	18 / 8	18 / 8	115	101	107	108	110
	High stiffness, high tensile strength	NOVODUR HH-112	ABS	1050	M	5.5	230-260	60-80	0.40-0.70	2700	58 / -	3.1 / 8.0	81	140 / 80	11 / 6	- / -	114	102	110	111	113
Highest impact strength	Impact strength	NOVODUR H950	ABS	1050	M	4.5	230-260	60-80	0.50-0.70	2600	50 / -	2.7 / -	80	170 / 130	17 / 7	17 / 8	115	101	108	114	116
	Very high impact strength	NOVODUR ULTRA 4105	ABS/PC	1070	M	9.0	240-260	60-80	0.50-0.70	2000	45 / -	3.7 / >15.0	70	n.b. / n.b.	40 / 32	38 / 31	94	99	108	107	109
Electroplating	Enhanced flow, low emission, low t. ductility	NOVODUR ULTRA 4255	ABS/PC	1100	M	-	250-270	60-80	0.55-0.75	2100	47 / -	4.1 / >30.0	70	n.b. / n.b.	55 / 55	- / -	97	103	116	110	113
	Stiffness	NOVODUR ULTRA 4000PG	ABS	1050	M	7.0	230-260	60-80	0.50-0.80	2400	46 / -	3.1 / >15.0	73	- / -	23 / 10	23 / 10	110	98	103	107	109
	Impact strength	NOVODUR ULTRA 4140PG	ABS/PC	1070	M	9.0	240-260	60-80	0.50-0.80	2100	46 / -	3.5 / >15.0	72	n.b. / n.b.	41 / 33	39 / 32	92	99	108	106	108

n.b. = no break



LURAN S is our benchmark material for bright conditions.

# LURAN® S

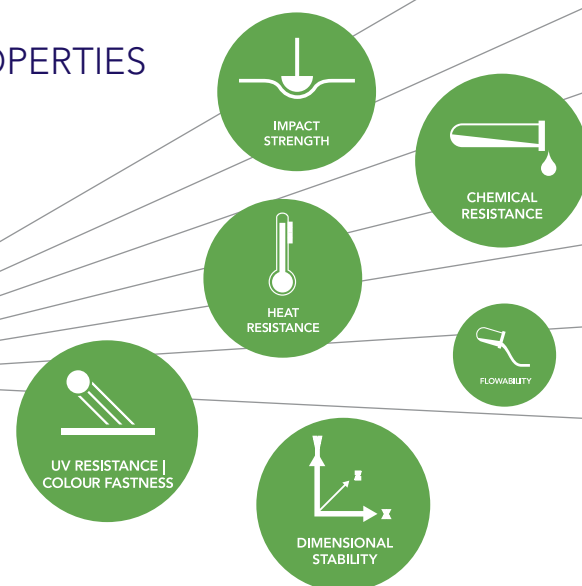
INEOS Styrolution's acrylonitrile styrene acrylate (ASA) polymers are the benchmark styrenic polymer for weather resistance. The grades in the Luran S portfolio feature high surface quality, excellent chemical resistance and good impact strength, including enhanced color fastness and superior long-term performance when exposed to UV irradiation and heat.

- LURAN® LURAN® HH
- NAS®
- TERLUX®
- ZYLAR®
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- NOVODUR® HIGH HEAT
- LURAN® S**
- LURAN® SC
- TERBLEND® N/S

## KEY APPLICATIONS

- › Automotive exterior: radiator grills, mirror housings, light housings, exterior pillars, spoilers, exterior trims, mounting brackets
- › Household applications
- › PVC capstock for sheets, sidings, roof tiles
- › Gardening equipment
- › Truck: exterior deflectors, grills

## KEY PROPERTIES



TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL					THERMAL					
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B)	Melt Volume Rate (220 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at yield, 23 °C	Flexural strength, 23 °C	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Heat deflection temperature, HDT A (annealed 4 h/80 °C)	Heat deflection temperature, HDT B (annealed 4 h/80 °C; 0.45 MPa)	Vicat softening temperature, VST/B/50		
UNIT	ISO 1183	ISO 62		ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 178	ISO 179/1eA	ISO 179/1eA	ISO 75-1/2	ISO 75-1/2	ISO 306			
	kg/m <sup>3</sup>	%		cm <sup>3</sup> /10 min	°C	°C	%	MPa	MPa	%	MPa	kJ/m <sup>2</sup>	kJ/m <sup>2</sup>	°C	°C	°C			
High heat	Rigidity (glass fiber reinforced)	<b>LURAN S KR2858G3</b>	ASA GF15	1180	0.30	M	5.0	240-280	40-95	0.40	6600	110	2.5	140	7	5	110	115	115
	Chemical resistance	<b>LURAN S 778T</b>	ASA	1070	0.35	M	5.0	240-280	40-80	0.40-0.70	2500	54	3.4	80	15	4	103	106	104
	Chemical resistance	<b>LURAN S 778TE</b>	ASA	1070	0.35	E	5.0	200-250	-	-	2500	54	3.4	80	15	4	103	106	104
High impact	Low shrinkage, Rigidity (glass fiber reinforced)	<b>LURAN S 778T G2</b>	ASA GF8	1130	-	M/E	3.5	240-280	40-80	-	3700	58	2.4	-	5	4	-	-	106
	High scratch resistance	<b>LURAN S KR2950</b>	ASA/PMMA	1100	-	M/E	10.0	240-280	40-80	0.40-0.70	2100	49	3.6	-	9	3	-	-	91
	Enhanced flow	<b>LURAN S 757G</b>	ASA	1070	0.35	M	25.0	240-280	40-80	0.40-0.70	2400	51	3.3	75	12	3	96	101	97
	Enhanced stiffness	<b>LURAN S 757R</b>	ASA	1070	0.35	M	8.0	240-280	40-80	0.40-0.70	2600	56	3.1	80	12	3	97	101	98
	Universal	<b>LURAN S 777K</b>	ASA	1070	0.35	M	15.0	240-280	40-80	0.40-0.70	2300	48	3.3	70	17	4	97	101	97
	Enhanced flow	<b>LURAN S 796M</b>	ASA	1070	0.35	M/E	9.0	240-280	40-80	0.40-0.70	2000	41	3.5	60	30	5	95	100	90
	Highest impact	<b>LURAN S 797S</b>	ASA	1070	0.35	M	6.0	240-280	40-80	0.40-0.70	2000	42	3.5	60	40	9	95	100	90
	Highest impact	<b>LURAN S 797SE</b>	ASA	1070	0.35	E	6.0	200-250	-	-	2000	42	3.5	60	40	9	95	100	90
	Low gloss/extrusion	<b>LURAN S 797SE Q440</b>	ASA	1070	0.40	E	5.0	200-240	-	-	1900	41	3.5	-	20	5	96	101	92
	Low gloss	<b>LURAN S 776S</b>	ASA	1070	0.35	M	4.0	240-280	40-80	0.40-0.70	2200	47	3.3	65	30	4	96	101	92
Surface gloss	Low gloss	<b>LURAN S 776SE</b>	ASA	1070	0.35	E	4.0	200-250	-	-	2200	47	3.3	65	30	4	96	101	92
	High gloss	<b>LURAN S 767KE</b>	ASA	1070	0.35	E	17.0	200-250	-	-	2300	50	3.3	70	10	4	97	101	98
	High stiffness	<b>LURAN S KR2859</b>	ASA	1070	0.35	M/E	12.0	200-250	-	-	2500	55	3.2	-	11	4	-	-	98

E = extrusion grade



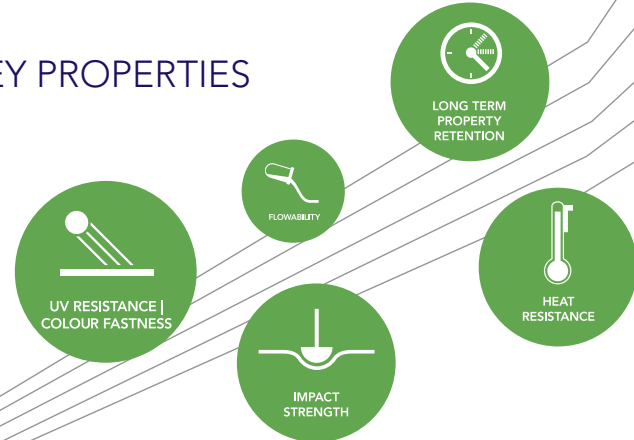
# LURAN® SC

INEOS Styrolution's blends of acrylonitrile styrene acrylate copolymer and polycarbonate (ASA/PC) offer superior UV resistance combined with high heat resistance. Luran SC grades are primarily used for demanding applications in automotive interiors and exteriors. INEOS Styrolution also offers a flame-retardant grade that meets UL 94 test standards at V0.

## KEY APPLICATIONS

- › Automotive exterior: radiator grills, exterior trims, mounting brackets
- › Automotive interior: overhead consoles
- › Sanitary applications
- › PVC capstock for sheets, sidings, roof tiles
- › Office equipment
- › Truck: exterior deflectors, grills, cabin parts

## KEY PROPERTIES



TEST METHOD	PROPERTIES					PROCESSING				MECHANICAL					THERMAL			
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Melt Viscosity (M), extrusion (E), blow molding (B)	Melt Volume Rate (260 °C / 5 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at yield, 23 °C	Flexural strength, 23 °C	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Heat deflection temperature, HDT A (annealed 4h/180 °C; 1.8 MPa)	Heat deflection temperature, HDT B (annealed 4 h/80 °C; 0.45 MPa)	Vicat softening temperature, V57/B/50	
UNIT	ISO 1183	ISO 62	ISO 1133	ISO 294	ISO 294	ISO 294-4	ISO 527	ISO 527	ISO 527	ISO 178	ISO 179/1eA	ISO 179/1eA	ISO 75-1/-2	ISO 75-1/-2	ISO 306			
<b>Highest impact strength</b>	LURAN S KR2868C	ASA/PC	1150	0.25	M	20	260-300	60-90	0.30-0.70	2400	60	4.6	80	100	15	103	123	130
<b>Enhanced flow</b>	LURAN S KR2864C	ASA/PC	1150	0.18	M	25	260-300	60-90	0.30-0.70	2600	63	4.6	100	60	11	105	124	120
<b>Highest heat resistance</b>	LURAN S KR2863C	ASA/PC	1160	0.16	M	20	260-300	60-90	0.30-0.70	2500	62	4.9	93	70	17	109	130	130
	LURAN S KR2861/1C	ASA/PC	1150	0.25	M	14	260-300	60-90	0.30-0.70	2300	53	4.9	78	65	20	106	125	120
<b>Reduced PC content</b>	LURAN S KR2866C	ASA/PC	1110	0.25	M	11	260-300	60-90	0.30-0.70	2600	60	3.4	90	40	9	102	113	110
<b>Flame retarding</b>	LURAN S KR2867C WU	ASA/PC	1190	0.15	M	45	260-280	40-60	0.30-0.70	2600	61	4.0	90	16	6	96	100	105

Explore the possibilities of LURAN SC's antistatic and flame-retardant grades.



- LURAN® LURAN® HH
- NAS®
- TERLUX®
- ZYLAR®
- CLEARLUX®
- STYROLUX®
- K-RESIN®
- STYROFLEX®
- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC**
- TERBLEND® N/S

# TERBLEND® N TERBLEND® S



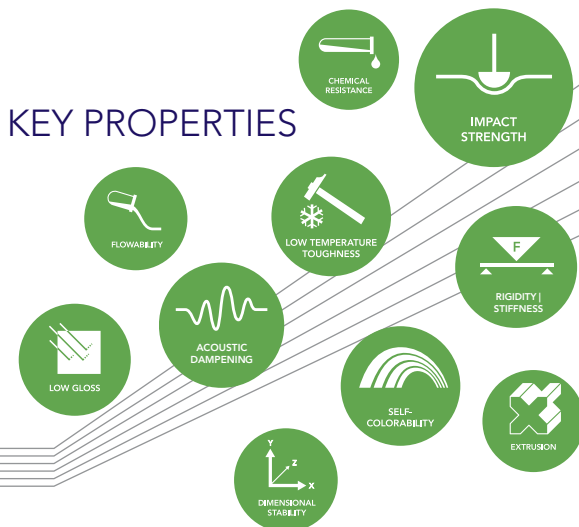
High-performance applications are driven by TERBLEND N/S.

INEOS Styrolution's acrylonitrile butadiene styrene and acrylonitrile styrene acrylate copolymer blends with polyamide (ABS/PA and ASA/PA) are the ideal choice for a matt surface finish. Terblend N (ABS/PA blends) and Terblend S (ASA/PA blends) comprise a family of styrenic grades perfect for a wide range of uses across multiple industries, including automotive, construction, household and electronics. Some of their unique features include pleasant haptics, easy processing, good adhesion to soft components, paintability without pretreatment and the potential for accelerated cycle times.

## KEY APPLICATIONS

- ▶ Automotive interior: loudspeaker grills, air ventings, steering wheel covers, roof consoles, seat trims, center consoles
- ▶ Unpainted automotive interiors
- ▶ Helmets
- ▶ Ski hatch openings
- ▶ Soap dispensers
- ▶ Housings for electrical & electronic devices

## KEY PROPERTIES



Impact resistance	High flow	Highest UV stability
	Melt strength	UV-stabilized
GF-reinforced	High flow	Highest UV stability
	Stiffness, UV-stabilized	UV-stabilized
Mineral reinforced	Surface quality	

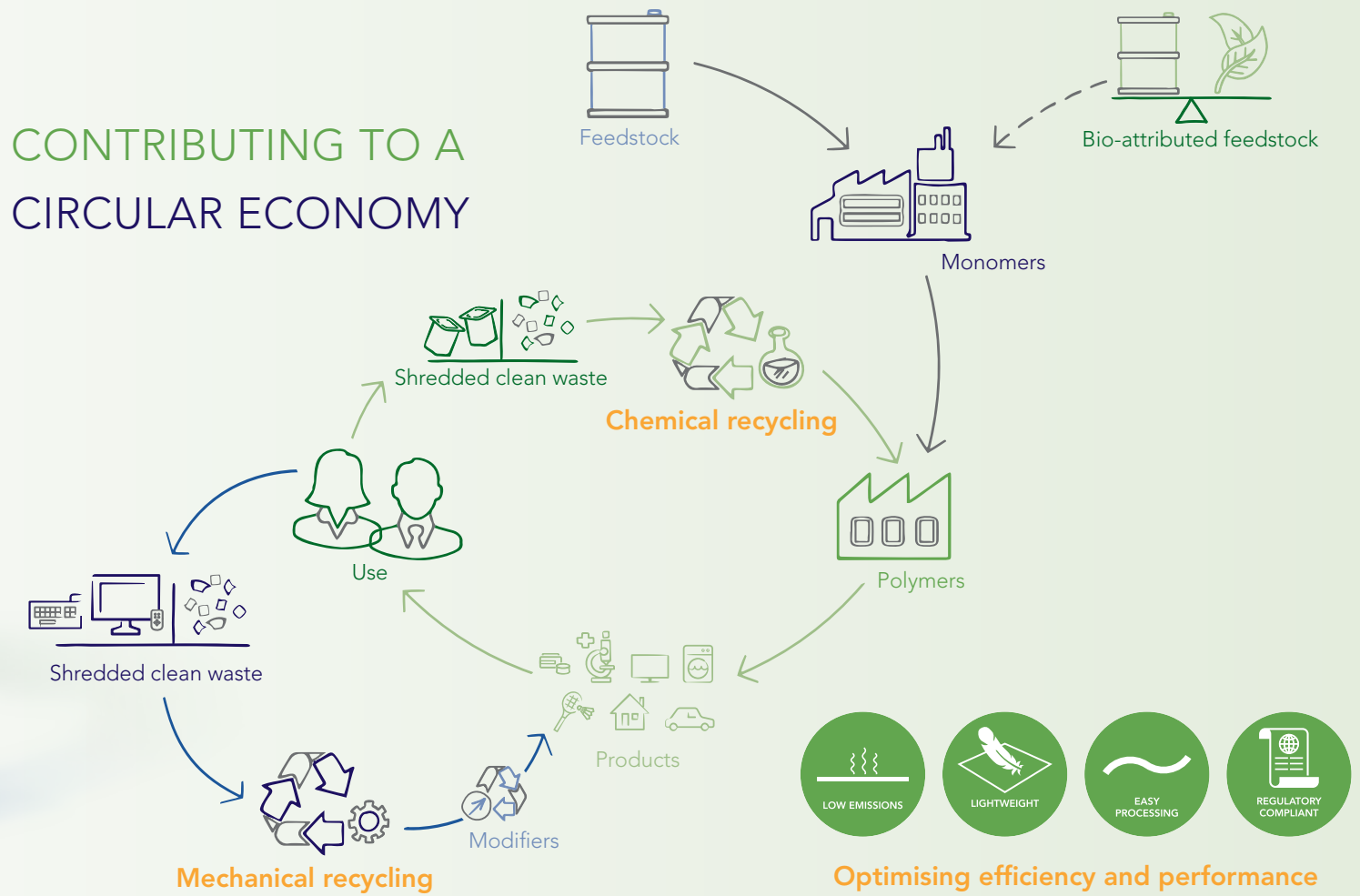
TEST METHOD	PROPERTIES				PROCESSING				MECHANICAL				THERMAL					
	Polymer abbreviation	Density	Moisture absorption, equilibrium 23 °C / 50% r.h.	Method: injection molding (M), extrusion (E), blow molding (B)	Melt volume rate (MVR) (240 °C / 10 kg)	Melt temperature range	Mold temperature range	Mold shrinkage range	Tensile modulus	Tensile stress at yield, 23 °C	Tensile strain at yield, 23 °C	Flexural strength, 23 °C	Flexural modulus	Charpy notched impact strength (23 °C)	Charpy notched impact strength (-30 °C)	Heat deflection temperature, HDT A (annealed 4h/80 °C; 1.8 MPa)	Heat deflection temperature, HDT B (annealed 4 h/80 °C; 0.45 MPa)	Vicat softening temperature, VST(B)/50
TERBLEND S NM-31	ASA/PA	1070	1.50	M	60	240-270	60-80	0.70-0.90	2100	50	3.3	65	2000	70	9	87	97	110
TERBLEND N NM-21EF	ABS/PA	1070	1.30	M	60	240-270	60-80	0.70-0.90	2100	45	3.1	65	2000	70	12	86	98	110
TERBLEND N NM-11	ABS/PA	1070	1.20	M	30	240-270	60-80	0.70-0.90	2000	43	3.5	62	1800	65	15	85	97	102
TERBLEND S SG-02EF	ASA/PA GF8	1114	1.40	M	45	240-270	60-80	0.50-0.80	3300	65	3.2	100	2400	10	5	98	174	128
TERBLEND N NG-02EF	ABS/PA GF8	1120	1.10	M	40	240-270	60-80	0.50-0.80	3100	55	3.0	85	2800	11	6	97	171	118
TERBLEND N NG-04EF	ABS/PA GF20	1200	0.90	M	30	240-270	60-80	0.50-0.80	5300	80	4.0	115	4500	14	8	108	180	130
TERBLEND N 3154	ABS/PA MF8	1110	1.30	M	31	240-270	60-80	0.50-0.80	2700	55	2.9	80	2500	8	6	93	100	105

- LURAN® LURAN® HH
- NAS®
- TERLUX®
- ZYLAR®
- CLEARLUX®
- STYROLUX®
- K-RESIN®
- STYROFLEX®
- NOVODUR®
- NOVODUR® HIGH HEAT
- LURAN® S
- LURAN® SC
- TERBLEND® N/S



# STYRENICS. MADE FOR RECYCLING.

## CONTRIBUTING TO A CIRCULAR ECONOMY



Styrenics are one of the most versatile materials in the 21st century, and have revolutionised the way we live today. Our products have become an indispensable part of consumers' everyday lives and provide solutions to societal challenges such as climate change, resource scarcity, urbanisation, rising living standards and population growth.

The solutions styrenics products offer include extending food shelf life thereby reducing food waste, while also providing lightweight solutions for the automotive industry leading to lower fuel consumption.

Our brand-new ECO range not only complements INEOS Styrolution's existing strong portfolio of styrenics standard products and specialties, but also matches the performance of our existing portfolio.



By offering styrenics solutions that deliver strong, sustainable performance, we want to ensure that our customers' businesses and end consumers' choices become more sustainable.

To read more about our ECO family of solutions, please visit:  
[www.styrolution-eco.com](http://www.styrolution-eco.com)

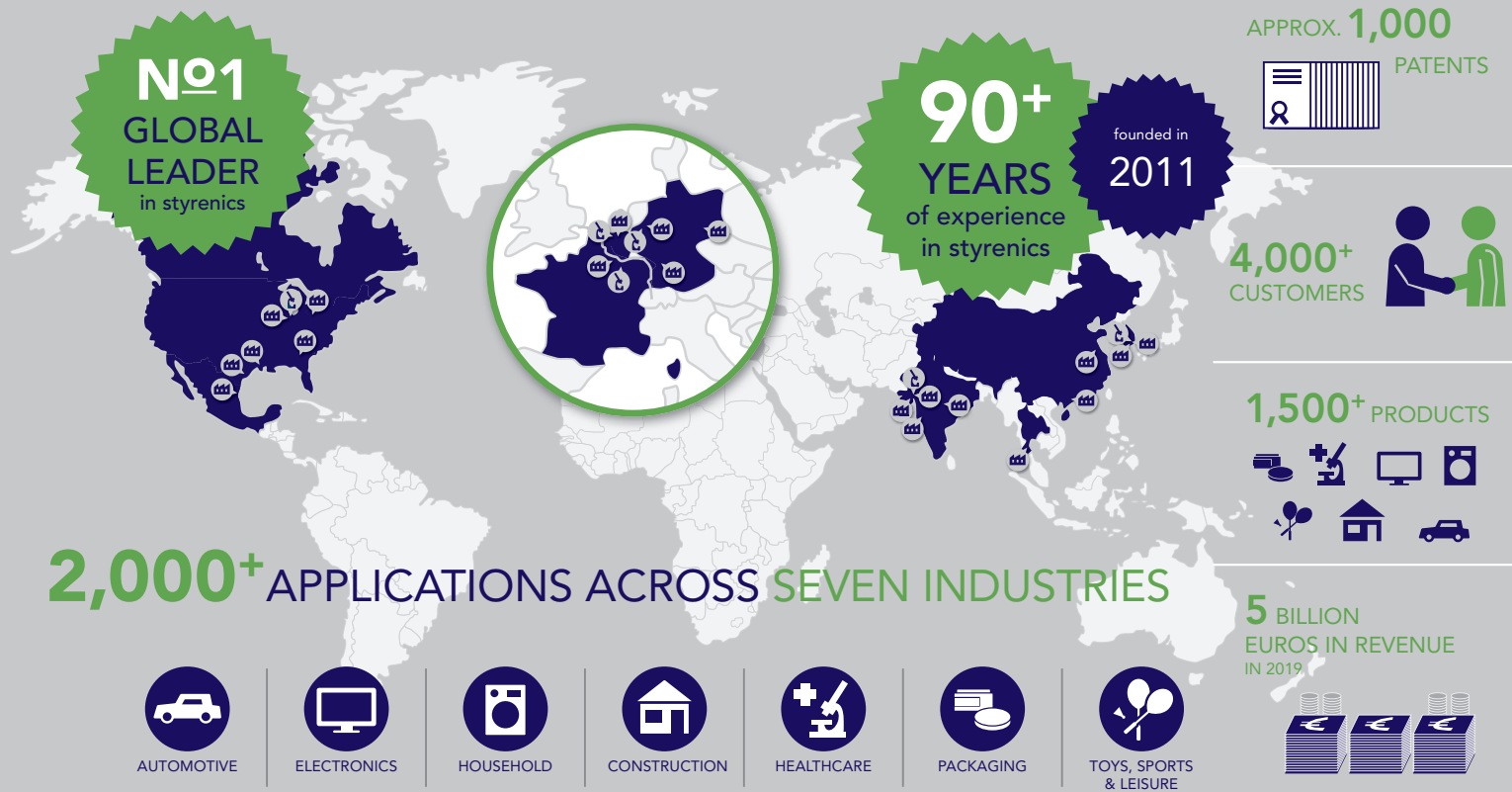
To read more about our actions and performance on sustainability visit:  
[www.ineos-styrolution.com/sustainability](http://www.ineos-styrolution.com/sustainability)



## INEOS STYROLUTION AT A GLANCE

INEOS Styrolution is the global leader in styrenics. The company provides products for many everyday applications across a broad range of industries, including healthcare, automotive, electronics, household, construction, toys/sports/leisure, and packaging.

 **3,600** EMPLOYEES | 
  **10** COUNTRIES | 
  **20** PRODUCTION SITES | 
  **6** R&D CENTERS | 
  **24** sales offices



## LET'S COLLABORATE

If you would like further details, need assistance in creating your applications, or are curious to explore new possibilities with styrenics, please contact us!

[www.ineos-styrolution.com](http://www.ineos-styrolution.com)

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**STYROLUTION**

Driving Success. Together.