Formerra™

Automotive Supplier Line Card

MATERIAL SOLUTIONS **DRIVING THE FUTURE**

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Solid, Trusted, Proven

At Formerra, we are continually transforming ideas into next-generation solutions, generating momentum to keep us all moving forward and redefining a new era of materials distribution. Led by a dedicated team of experts, we provide unparalleled industry knowledge, supply chain excellence and ingenuity. OEM, tier supplier or molder—at any point in the automotive process, we have resources and capabilities available to help you from design realization to mass production.

Our Suppliers

AVIENT

Celanese
The chemistry inside innovation™

Chevron Phillips Chemical

covestro

Delrin®

DOW

DUPONT™

EASTMAN

EVONIK
Leading Beyond Chemistry

Formerra

GEON
Performance Solutions

INEOS Olefins & Polymers USA

INEOS STYROLUTION

INVISTA™
POLYPROPYLENE

LyondellBasell

Pinnacle Polymers

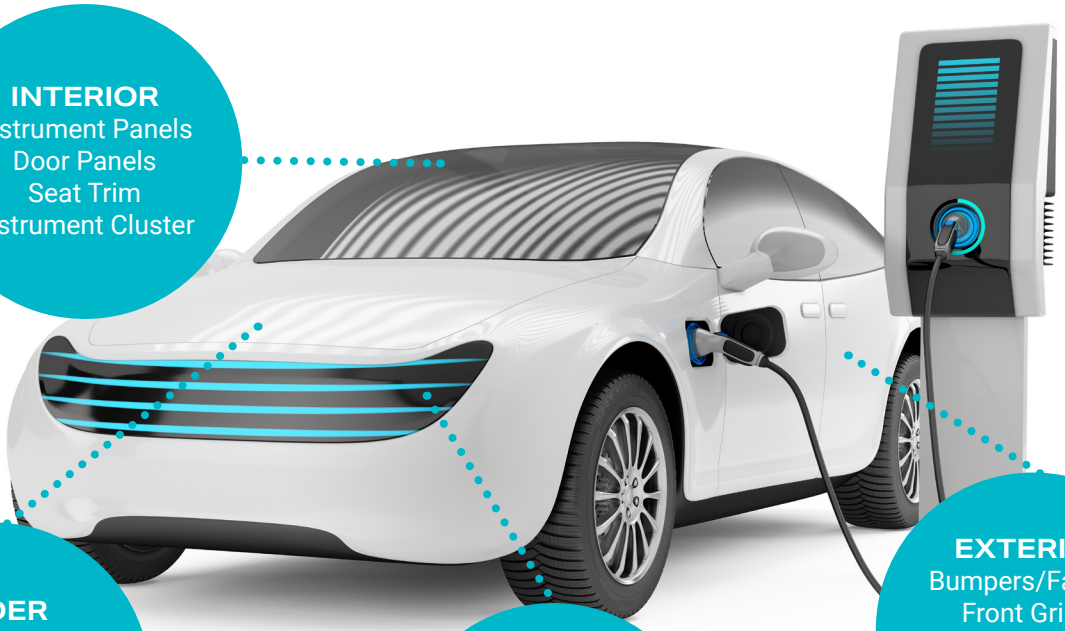
RheTech
A HEXPOL COMPANY

TRINSEO™

Reimagining the Automotive Industry

The automotive industry has experienced an inflection point with nearly all OEMs pivoting to offer electric vehicles. With the drive towards electrification of their product portfolio, vehicles are not only becoming less petroleum-dependent, but they are increasingly becoming smart, connected and data-driven. As a result, the pressure is on for next-generation materials that are more lightweight, provide increased durability, improve heat resistance and are more sustainable. Navigating the demand for materials that can balance all of these requirements can be complex, but with Formerra's technical and industry experience, expansive material portfolio and reliable supply chain helping to simplify the process, Formerra can help OEMs and Tier Suppliers with the demands of today as well as the designs of tomorrow.

ADVANCED MOBILITY
Tubing • Housings • Fender Liners • Sensors
Shrouds • Gaskets & Seals



INTERIOR
Instrument Panels
Door Panels
Seat Trim
Instrument Cluster

UNDER THE HOOD
Tubing • Housings
Sensors • Shrouds
Electrical Connectors

LIGHTING
Head/Fog Lamp
Map/Dome Lighting
Rear Combination Lamp

EXTERIOR
Bumpers/Fascias
Front Grilles
Hoods
Liftgates
Windows

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By Chemistry

				FOCUS APPLICATIONS				
Product Family	**Supplier**	**Product Name**	**Product Descriptions & Typical Applications**	**Lighting**	**Interior**	**Exterior**	**Under The Hood**	**Advanced Mobility**
Acetal (POM)	Delrin	Delrin®	High strength, rigidity and toughness. Used in gears, seat belt buckles, housings, latches, parts needing lubricity, and wear-resistant surfaces.	x	x	x	x	x
Acrylic (PMMA)	Trinseo	Plexiglas®	Transparent, rigid thermoplastic used as a shatterproof replacement for glass. UV & abrasion-resistant, excellent light transmission used in lenses (headlights, tail lights, turn signals, instrument clusters, autonomous driving sensors, etc.), mirror housings, interior lighting, instrument panel optics, lightpipes, pillar/ spoiler trim, badging, style lighting, light guides, reflectors, interior/exterior lighting, bumpers and fenders.	x	x	x		x
		Plexiglas® Frosted Plexiglas® Reflect™		x	x			
Acrylonitrile Butadiene Styrene (ABS)	INEOS Styrolution	Lustran®	Opaque thermoplastic and amorphous polymer with strong corrosion and impact resistance. Used in door switch bezels, badging, trim (door panels, chrome-plated interior, sill plate, etc.), center console trays, mirror skull caps and exterior light housings.	x	x	x		x
		Novodur®		x	x	x	x	x
		Terluran®			x	x		
ABS Blends	INEOS Styrolution	Terblend® N, Triax®	Enhanced processability, good flow characteristics, strength, stiffness and good heat resistivity plastic used in electrical device housings, automotive interior components, truck cabin components.		x			x
Acrylonitrile Styrene Acrylate (ASA)	INEOS Styrolution	Luran® S	Amorphous thermoplastic with improved weather resistance used in fascia brackets, mirror housings, grille carriers, fog light bezels, pillar trim, hood vents, emblems, roof rails, upper and lower spoilers (painted and unpainted), door panel trim, seat trim, 3D printed parts, etc.	x	x	x	x	x
	LyondellBasell	Centrex®			x	x		
ASA Blends	INEOS Styrolution	Terblend® S	Characterized by their excellent impact strength and heat stability, similar to PC/ ABS compounds. The ASA component, however, features superior UV stability which makes them well-suited for interior and exterior trim components. Offers good flow, high sound-absorption, enhanced impact strength and excellent chemical resistance.		x			x
	LyondellBasell	Centrex®			x	x		
Bio-Fiber Reinforced Thermoplastic Polyolefin (TPO)	RheTech, Inc.	RheVision	Bio-fiber reinforced thermoplastic compounds, used in various interior applications.		x			x

By Chemistry

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Product Family	**Supplier**	**Product Name**	**Product Descriptions & Typical Applications**	**Lighting**	**Interior**	**Exterior**	**Under The Hood**	**Advanced Mobility**
Color, Additives & Inks	Avient	CESA™	Portfolio of polymer additives which enhance part performance, improve manufacturing efficiency, reduce manufacturing downtime and enable smooth product transitions. Also includes a wide variety of color match and mold in color options for enhanced interiors, effects and other unique characteristics.			x		
		ColorMatrix™ Excelite™			x			
		Hydrocerol™			x	x		
		OnColor™			x	x		
		Remafin™			x		x	
		Renol™			x	x	x	
		Smartbatch™			x	x		
		Smartbatch™ FX			x	x	x	
High Density Polyethylene (HDPE) Compounds	GEON Performance Solutions	GEON® RESILIENCE®	HDPE is known for its large strength-to-density ratio and is used to manufacture batteries, different kinds of tanks (oil, brake fluid, washer fluid, etc.), interior linings, bumpers, seats, storage inner compartments, trims, and other accessory components, including inner and outer protective covers and fixing elements.		x			
	Chevron Phillips	Marlex®			x		x	
	Dow	Dowlex®			x		x	
	Formerra	Verity™			x			
Masterbatch	DuPont	Siloxane Masterbatch	Additive to aid with part release from mold, material flow and adding lubricity to parts, anti-scratch for vehicle interior components.		x			
Nylon (PA 6, PA 66, PA 66/6, PA 66/6T, PA 612, PA 11, PA 12, PA 1010, Transparent PA)	Avient	Nymax™	Good chemical and temperature resistance; provides strength, toughness, and stiffness; and resists wear and abrasion. Used in applications such as intake manifolds, radiator end tanks, engine covers and shrouds, air ducts, underhood enclosures, motor encapsulations, thermostat housings, fuel cut off valves, solenoid encapsulations, air cleaner boxes, electrical connectors and sensor bodies.		x	x	x	
		Nymax™ PIR			x	x	x	
		reSound™ R ND			x			
	Celanese	Zytel®		x	X	x	x	x
	Evonik	VESTAMID®					x	
		TROGAMID®			x			

By Chemistry

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Product Family	**Supplier**	**Product Name**	**Product Descriptions & Typical Applications**	**Lighting**	**Interior**	**Exterior**	**Under The Hood**	**Advanced Mobility**
Polycarbonate (PC) & PC Blends (PC+ABS, PC+ASA, PC+SAN, PC+PBT, PC+PET, PC+TPU)	Covestro	Bayblend®	Strong, tough materials and some grades are optically transparent. They are easily worked, molded, and thermoformed and used in headlight assemblies, impact resistant body panels, small windows, door panel and exterior trim, multi-function displays, heat stakes (TC), car bumpers, molded in color interior components, battery modules, roof trim, seat back trim panels, bezels, heat sinks, signature lighting and more.	x	x	x		x
		Makroblend®				x		x
		Makrolon®		x	x	x		x
		Texin®		x	x	x	x	x
	Trinseo	CALIBRE™, CALIBRE™ MEGARAD™		x		x		
		EMERGE™		x	x	x	x	
	INEOS Styrolution	Luran® SC				x		
		Novodur®		x	x	x	x	x
High Heat Polycarbonate (HHPC)	Covestro	Apec®	Provides outstanding transparency and brilliance paired with a high resistance to heat. Excellent high-gloss surface for applications requiring metallization. This linear, amorphous copolycarbonate can withstand temperatures between approximately -30°C and approximately 150°C for extended periods. It is also tough and resistant to impact. Used in covers for brake lights and indicator lights, headlamp reflectors/bezels, etc.	x	x	x		x
Polybutylene Terephthalate (PBT)	Celanese	Crastin®	Semi-crystalline engineering thermoplastic that offers weight and cost savings used in electrical connectors, mirror housings, cowl vents, handles, fans, fuel system components, fuse boxes, sensor housings, ingition system components, windshield wiper covers, manual shifter pivot components, etc.	x	x		x	x
Polyethylene Terephthalate (PET)	Celanese	Rynite®	Lightweight, glass-reinforced composition, dimensional stability, durability, and high-gloss finish, used across a wide range of applications, particularly as a replacement for die-cast metals and thermosets. Coil bobbins, solenoid encapsulations, wiper arms, lamp sockets, electrical connectors, control knobs, housings, covers, brackets. Makes electrical devices, photovoltaic panels, switches, and other critical energy components stronger and reliable.	x	x			x
Polyphthalamide (PPA)	Celanese	Zytel® HTN	High performance, high temperature resistant plastic that can replace aluminum in complex automotive components.				x	x

By Chemistry

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Polypropylene (PP) & PP Blends (Alloy, Compounds, Copolymer)	INVISTA	INVISTA™	The most frequently used of any plastic in automotive manufacturing due to its execellent formability, excellent chemical, heat and impact resistance. Typically found in bumpers, gas tanks, carpet fibers, instrument panels, interior trim components, fender liners, seating, bumper fascias, battery cases, rocker panels, scuff plates, cowl grilles, lamp housings, spalsh shields, door trim, trunk liners, etc.		x	x	x	x
	GEON Performance Solutions	GEON® RESILIENCE®		x	x	x	x	
	INEOS Olefins & Polymers	INEOS®			x			
	LyondellBasell	Hifax®			x	x		
		Hostacom®		x	x	x	x	
		Pro-fax®			x	x	x	
		Softell®			x			
	Pinnacle Polymers	Pinnacle PP			x	x	x	x
	RheTech, Inc.	RheComp		x	x	x	x	x
Specialty Formulations	Avient	Complēt™	A portfolio of application specific materials that can be used in automotive areas that require high mechanical performance within tight specifications such as door & under the hood components. Also materials for applications that require weight, radiation shielding, or metal/lead alternatives and low-density formulations for underhood covers, panels and inserts fans and air management systems, battery trays, roofing systems and other interior and exterior components.		x	x	x	x
		ECCOH™						x
		Edgetek™ PKE					x	
		Gravi-Tech™			x			
		LubriOne™				x		
		Maxxam™ FR					x	
		OnForce™			x	x		
		Stat-Tech™						x
		Surround™						x
		Therma-Tech™		x				x
		OnFlex™			x	x		
		Versaflex™ CE			x			
Styrene Methyl Methacrylate (SMMA)	INEOS Styrolution	NAS® XC	These transparent copolymers are a premium choice for applications demanding a strong, stiff, water-clear plastic. The material is designed for applications requiring ultra clarity and very low haze. The UV version offers enhanced UV and high UV color stability making it an ideal material for automotive exterior and interior applications.	x	x			x
		NAS XC® UV		x	x	x		

By Chemistry

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Product Family	**Supplier**	**Product Name**	**Product Descriptions & Typical Applications**	**Lighting**	**Interior**	**Exterior**	**Under The Hood**	**Advanced Mobility**
Thermoplastic Polyester Elastomer (TPC-ET)	Celanese	Hytrel®	High temperature, high performance copolyester elastomers that combine the properties of thermoplastics and thermoset rubbers with good resistance to weather, chemicals wear and heat. Used in constant velocity (CV) joint boots, tie rod boots, ball joint boots, air ducts, seating, air bag deployment covers, etc.		x	x	x	x
Thermoplastic Polyolefin (TPO) Compounds	GEON Performance Solutions	GEON® RESILIENCE®	Characterized by high impact resistance, low density and good chemical resistance, used in HVAC modules, engine covers, underbody panels, running boards, IP retainers, door panel substrates, sun visor cores, seat backs and load floors, etc.		x	x		
	RheTech, Inc.	RheComp		x	x	x	x	x
Thermoplastic Polyolefin Elastomer (TPO (POE))	LyondellBasell	Adflex®	POEs offer low density and high flexibility and are commonly used as impact modifiers and to make molded products more flexible. They can be used in bumper covers and fascias, interior trim panels, door panels, etc.		x	x		
		Hifax®			x	x		
		Hostacom®			x	x		
		Softell®			x			
Thermoplastic Polyurethane (TPU) Polyester/Polyether	Covestro	Texin®	Outstanding abrasion resistance, heat resistance, shock absorption, good moisture, oil and chemical resistance. Used for flexible body panels, interior trim, convertible top rear windows, etc.	x	x	x	x	x

By Supplier

			FOCUS APPLICATIONS				
Supplier	Product Family	Product Name	Lighting	Interior	Exterior	Under The Hood	Advanced Mobility
AVIENT	Color, Additives & Inks	CESA™				x	
		ColorMatrix™ Excelite™		x			
		Hydrocerol™, OnColor™, Smartbatch™		x	x		
		Nymax™, Nymax™ PIR, Renol™, Smartbatch™ FX		x	x	x	
		Remafin™		x		x	
	PA 6 or PA 66	reSound™ R ND		x			
	Specialty Formulations	Complēt™		x	x	x	x
		ECCOH, Stat-Tech™, Surround™					x
		Edgetek™ PKE				x	
		Gravi-Tech™		x			
		LubriOne™			x		
		Maxxam™ FR				x	x
		OnForce™		x	x		x
		Therma-Tech™	x				x
	TPE	OnFlex™		x	x		
		Versaflex™ CE		x			
Celanese The chemistry inside innovation™	PA 6, PA 66, PA 66/6 Copolymer	Zytel®	x	x	x	x	x
	PA 612, PA 66/6T Copolymer	Zytel®		x		x	x
	PBT	Crastin®	x	x		x	x
	PET	Rynite®	x	x			x
	PPA	Zytel® HTN				x	x
	TPC-ET	Hytrel®		x	x	x	x
Chevron Phillips Chemical	PE	Marlex®		x		x	
covestro	PC, HH PC, PC+ABS, PC+ASA, PC+SAN	Apec®, Bayblend®, Makrolon®	x	x	x		x
	PC+PBT, PC+PET	Makroblend®			x		x
	PC+TPU, TPU Polyester, TPU Polyether	Texin®	X	x	x	x	x
Delrin®	Acetal (POM)	Delrin®	x	x	x	x	x
DOW®	Polyethylene	DOWLEX®		x		x	

By Supplier

			FOCUS APPLICATIONS				
Supplier	Product Family	Product Name	Lighting	Interior	Exterior	Under The Hood	Advanced Mobility
DUPONT	Masterbatch	Siloxane Masterbatch		x			
EVONIK Leading Beyond Chemistry	PA 12, PA 612	VESTAMID®				x	
		TROGAMID®		x			
Formerra	PE, PP, PS	Verity™		x			
GEON Performance Solutions	HDPE Compounds	GEON® RESILIENCE®		x			
	PP Compounds	GEON® RESILIENCE®	x	x	x	x	
	TPO Compounds	GEON® RESILIENCE®		x	x		
INEOS Olefins & Polymers USA	PP Copolymer	INEOS®		x			
INEOS STYROLUTION	ABS	Lustran®	x	x	x		x
	ABS, ASA , PC+ABS	Novodur®, Luran® S	x	x	x	x	x
	ABS	Terluran®		x	x		
	ABS+PA, ASA+PA	Terblend® N, Terblend® S, Triax®		x			x
	PC+ASA	Luran® SC			x		
	SMMA	NAS® XC	x	x			x
	SMMA	NAS XC® UV	x	x	x		
INVISTA POLYPROPYLENE	PP Copolymer	INVISTA™		x	x	x	x
LyondellBasell	ASA, ASA+AES, ASA+TPE, PP Alloy, PP Compounds/PP Copolymer, TPO (POE)	Centrex®, Hifax®, Hostacom®, Adflex®		x	x		
	PP Compounds/PP Copolymer	Hostacom®	x	x	x	x	
	PP Compounds/PP Copolymer	Pro-fax®		x	x	x	
	PP Compounds/PP Copolymer, TPO (POE)	Softell®		x			
Pinnacle Polymers	PP Copolymer	Pinnacle PP		x	x	x	x
RheTech	Bio-Fiber Reinforced TPO	RheVision		x			x
	PP Compounds, TPO Compounds	RheComp	x	x	x	x	x
TRINSEO	Acrylic (PMMA)	Plexiglas®	x	x	x		x
	Acrylic (PMMA)	Plexiglas® Frosted, Plexiglas® Reflect™	x	x			
	PC	CALIBRE™, CALIBRE™ MEGARAD™, EMERGE™	x		x		
	PC+ABS	EMERGE™	x	x	x		
	PC+PET	EMERGE™	x	x		x	
	PP, PS	INSPIRE™, IR STYRON™		x	x	x	

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