

AUTOMOTIVE

Local Solutions. Global Reach

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AsahiKASEI











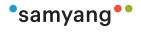














ENTEC POLYMERS

AUTOMOTIVE SOLUTIONS



EXTERIOR



INTERIOR



POWERTRAIN/UNDERHOOD



ELECTRIC VEHICLES



LIGHT-WEIGHTING



HEAVY TRUCK

Serving a Complex Market, One Part at a Time

serve the needs of the European automotive OEMs and Tier I's with production facilities in the NAFTA region. Entec has been producing and distributing quality thermoplastics since 1985 and we offer the commercial sales support, technical production support and local stocking support for every auto OEM and Tier I/Tier II. The automotive market has been and continues to be a top focus for our company, and we have assembled more than 100+ years of combined experience serving this industry in order to stay at the top.

Through strategic

partnerships, we also

Since applications in the automotive market are incredibly diverse, Entec has grown its supply base and technical knowledge to cover almost every area of a vehicle. From under the hood/PTUH, interior trim and exterior trim. To durability and light-weighting, we offer a wide range of products to choose from. Through our manufacturing partners in multiple production locations throughout the NAFTA region, Entec Polymers puts a heavy focus on finding the right material for each application. We are confident our technical support, customer focused approach and market know-how will provide each level of the Automotive sector what is needed to survive and flourish in an ever changing marketplace.

Automotive Solutions **EXTERIOR**

- Description in Every vehicle's personality starts with the exterior appearance. The individual needs of each segment mandates everything that is aligned and set up for function and performance. Exterior trim or functional hardware must endure a variety of elements.
- Aesthetic demands, color/texture/gloss. Weathering resistance. Safety performance. Enduring strength. Haptic performance. Combining all of the design criteria into our materials validates a commitment to excellence that better serves everyone.
- ABS, ASA, PBT, PA6, PC, PC-ABS, POM, PP, TPO, short and long glass filled, mineral and glass filled, mineral filled, and alloys. Supporting every application including Bumper Systems, Exterior Trim, Headlamps, Cowl Screens, Door Handles, Outside Rearview Mirrors, Wheel Arch Liners, Wiper Systems, Rocker Panels, and Structural Supports that enhance durability.



EXTERIOR		
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	APPLICATION	KEY CRITERIA	POLYMER TYPE	SUPPLIER & BRAND
1	Cowl Vent Grille (CVG)/Leaf Catcher	Chemical Resistance, High Stiffness, Low Temperature Toughness, Low Water Absorption	ASA, PP, TPO	 ASAHI KASEI: Thermylene® ENPLAST: RAVATUF® INEOS STYROLUTION: Luran® S, Lustran® RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN®
2	Roof Rack Components	Chemical Resistance, Heat Resistance, Impact Resistance, UV Resistance/ Weatherable	ASA, PC-ABS, PC-ASA, PA 6, PA 66, PP	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid® INEOS STYROLUTION: Luran® S, Lustran® RAVAGO MANUFACTURING: HYBRID, HYLON®, MAFILL®, SCOLEFIN®
3	Pillar Covers	Chemical Resistance, Good Stiffness, Impact Resistance, Paintable/Platable, UV Resistance/Weatherable	ABS, PC-ABS, ASA, PMMA	 CHIMEI: Acryrex®, Polylac® INEOS STYROLUTION: Luran® S, Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYBRID TRINSEO: Magnum™, Pulse™
4	Tailgate Trim/ Handles	Chemical Resistance, Good Stiffness, Impact Resistance, Paintable/Platable, UV Resistance/Weatherable	ABS, ASA, PC- ABS, PA 6, PP, TPO	 ASAHI KASEI: Thermylene® CHIMEI: Polylac® ENPLAST: RAVATUF® INEOS STYROLUTION: Luran® S, Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYLON®, MAFILL®, SCOLEFIN® TRINSEO: Magnum™, Pulse™
5	Front Grilles	Chemical Resistance, Impact Resistance, Paintable/ Platable Stiffness & Strength, UV Resistance/Weatherable	ABS, PC-ABS, ASA, PP, TPO	 ASAHI KASEI: Thermylene® INEOS STYROLUTION: Luran® S, Lustran®, Novodur®, Terluran® ENPLAST: RAVATUF® RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN® TRINSEO: Magnum™, Pulse™
6	Headlamp Support Brackets	Chemical Resistance, Impact Resistance, Stiffness/ Strength	ABS, ASA, PA 6, PBT, PBT-ASA	 BASF: Ultramid® & Ultradur® S CELANESE: Celanex® CHIMEI: Polylac® INEOS STYROLUTION: Luran® S, Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYLON® TRINSEO: Magnum™
7	Lamp Housings (Front & Rear)	Bondable, Heat Resistance, Impact Resistance, Paintable/ Platable	ABS, ASA, PC- ABS, PC-ASA, PA 6, PP, PMMA	 ASCEND: Vydyne® BASF: Ultramid® CHIMEI: Acryrex®, Polylac® INEOS STYROLUTION: Luran® S, Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYLON® TRINSEO: Magnum™, Pulse™
8	Exterior Mirrors	Chemical Resistance, Good Stiffness, Impact Resistance, Paintable/Platable, UV Resistance/Weatherable	ABS, ASA, PC- ASA, PA 6, PA 66, PBT, PP	 ASAHI KASEI: Leona®, Thermylene® ASCEND: Vydyne® BASF: Ultramid®, Ultradur® CHIMEI: Polylac® EMS-GRIVORY: Grivory® INEOS STYROLUTION: Luran® S, Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYLON®, MAFILL®, SCOLEFIN® TRINSEO: Magnum™, Pulse™
9	Door Handles	Chemical Resistance, Good Stiffness, Impact Resistance, Paintable/Platable, UV Resistance/Weatherable	ABS, PC-ABS, PA 6, PBT, POM, PP	 ASAHI KASEI: Thermylene® BASF: Ultramid® CELANESE: Celcon® INEOS STYROLUTION: Lustran®, Novodur® RAVAGO MANUFACTURING: EnViramid®, HYLON® TRINSEO: Magnum™, Pulse™

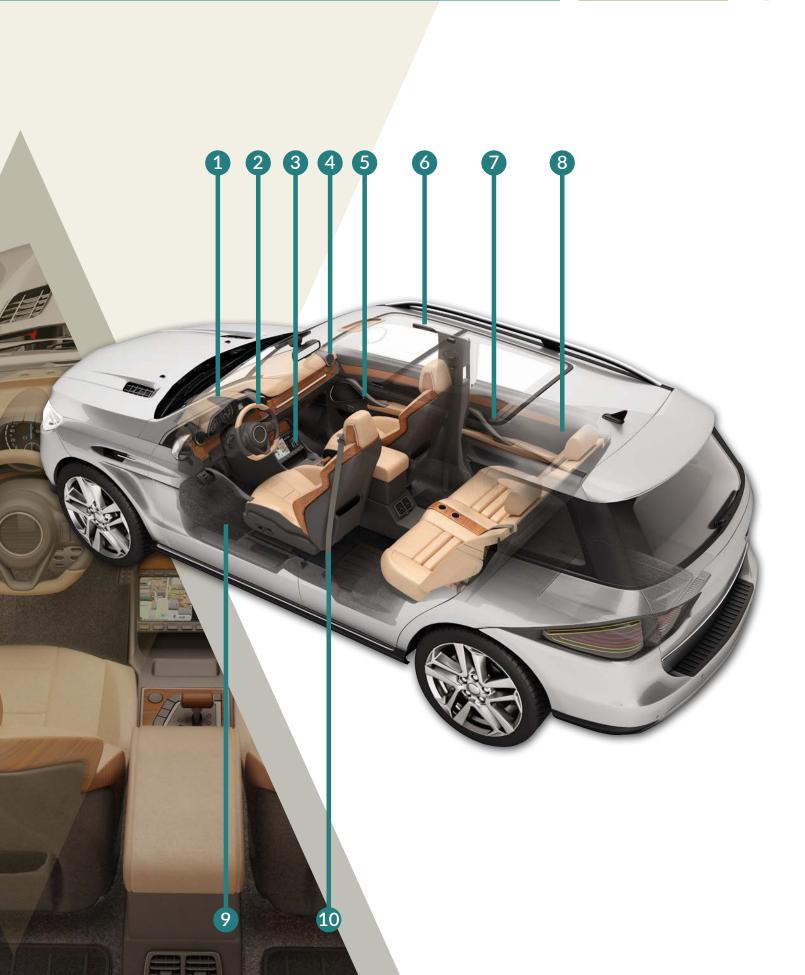
INTERIOR



- Upon entry to the vehicle, we immediately start judging the appearance and feel as we step inside. Interior trim provides the harmony. Seating mandates comfort for a long drive. Structural consistency is a mandate of high performance.
- Aesthetic demands, color/texture/gloss. Weathering resistance. NVH performance. Enduring strength. Scratch/Mar resistance. Haptic performance. Application criteria that touch all of the senses will be met by our extensive line of resins to serve all of these expectations.
- ABS, ASA, PBT, PA66, PA6, PC, PC-ABS, PE, POM, PP, TPO, short and long glass filled, mineral and glass filled, mineral filled, and alloys. Our material applications inside the vehicle are everywhere as follow: Trim, Seating, I/P, Center Console, Door Hardware, Sound Dampening, Sunroof and Visor elements, etc.

INTERIOR





	APPLICATION	KEY CRITERIA	POLYMER TYPE	SUPPLIER & BRAND
1	Instrument Panel Components	Dimensional Stability, Good Stiffness, Good Toughness, Impact Resistance Scratch Resistance, Surface Appearance, UV Resistance	ABS, PC-ABS, PP, TPO	 ASAHI KASEI: Thermylene® CELANESE: Celstran®, Santoprene® CHIMEI: Polylac® ENPLAST: RAVATUF® INEOS STYROLUTION: Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYBRID TRINSEO: Magnum™, Pulse™
2	Steering Systems	Good Strength, Impact Resistance, Scratch Resistance, Surface Appearance	ABS, PC-ABS, PA 6, POM, PP, TPO	 ASAHI KASEI: Therymylene® BASF: Ultramid®, Ultraform® CELANESE: Celcon®, Hostaform® CHIMEI: Polylac® ENPLAST: RAVATUF® INEOS STYROLUTION: Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYBRID, HYLON® TRINSEO: Magnum™, Pulse™
3	Interior Trim & Center Console	Chemical Resistance, Colorability, Dimensional Stability, Good Toughness, Good Stiffness, Scratch Resistance, Surface Appearance, UV Resistance, Wear Resistance	ABS, PC-ABS, PP, TPO, TPV	 ASAHI KASEI: Thermylene® CELANESE: Celstran®, Santoprene® CHIMEI: Polylac® ENPLAST: RAVATUF®, ENFLEX® INEOS STYROLUTION: Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYBRID TRINSEO: Magnum™, Pulse™
4	Air Conditioning & Heating Ducts	Scratch Resistance, Surface Appearance, UV Resistance	ABS, PC-ABS, PE, PP, TPO	 ASAHI KASEI: Thermylene® ENPLAST: RAVATUF® FORMOSA: Formolene® INEOS: PP PINNACLE: PP RAVAGO MANUFACTURING: HYBRID, MAFILL®, SCOLEFIN® TRINSEO: Magnum™, Pulse™
5	Speaker Grills	Scratch Resistance, Surface Appearance, UV Resistance,	ABS, PA-ABS, PC-ABS, POM	 BASF: Ultraform® CELANESE: Celcon®, Hostaform® CHIMEI: Polylac® INEOS STYROLUTION: Lustran®, Novodur®, Terblend®, Terluran® RAVAGO MANUFACTURING: HYBRID TRINSEO: Magnum™, Pulse™
6	Grab Handles	Colorability, Good Toughness, Good Stiffness	PA 6, POM, PP, TPV	 ASAHI KASEI: Thermylene® BASF: Ultraform®, Ultramid® CELANESE: Celcon®, Hostaform®, Santoprene® RAVAGO MANUFACTURING: HYLON®
7	Door Handles	Abrasion Resistance, Creep Resistance, Chemical Resistance, Good Stiffness, Impact Resistance	ABS, PA 6, PC- ABS, PP	 ASAHI KASEI: Thermylene® BASF: Ultramid® CHIMEI: Polylac® INEOS STYROLUTION: Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYLON® TRINSEO: Magnum™, Pulse™
8	Door Components	Scratch Resistance, Surface Appearance, UV Resistance	ABS, PC-ABS, PP, TPO	 ASAHI KASEI: Therymylene® ENPLAST: RAVATUF® INEOS STYROLUTION: Lustran®, Terluran® TRINSEO: Magnum™, Pulse™
9	Floor Mats	Good Toughness, Impact Resistance, Wear Resistance	TPV	• CELANESE: Santoprene® • ENPLAST: ENFLEX®
10	Seatbelt Components	Good Strength, Impact Resistance, Wear Resistance/ Lubricity	ABS, PC-ABS, PA 6, PA 66, PC, POM	 ASCEND: Vydyne® BASF: Ultramid® CELANESE: Celcon® CHIMEI: Polylac® INEOS STYROLUTION: Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYLON®, HYBRID TRINSEO: Calibre™, Magnum™, Pulse™



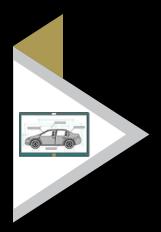
Entec Extreme Environment Polymers

- The most demanding conditions an automobile faces exist under the hood. Whether its propulsion or thermal solutions you want to resolve we have the material choices to meet the challenge.
- High temperature. Chemical or fluid resistance. Conductivity prevention. Structural integrity. Our diverse portfolio of performance polymers will meet the design criteria necessary for your application.
- Providing objective solutions to complex environments will ensure the correct resin is utilized. PBT, PET, PPA, PPE, PPS, PA66, PA6, PE, PP, short and long glass filled, mineral and glass filled, alloys. Comprehensive best describes our approach to product development.

	APPLICATION	KEY CRITERIA	POLYMER TYPE	SUPPLIER & BRAND
POWERTRAIN/UNDERHOOD The state of the state	1 Engine Covers	Chemical Resistance, Good Surface Appearance, Heat Resistance, Impact Resistance	PA 6, PA 66, PP	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid® RAVAGO MANUFACTURING: EnViramid®, HYLON®, MAFILL®, SCOLEFIN®
	2 Air Intake Manifolds	Bondable, Good Surface Appearance, High Stiffness	PA 6	BASF: Ultramid® RAVAGO MANUFACTURING: HYLON®
	3 HVAC Components	Chemical Resistance, Low Temperature Toughness, Stiffness & Strength	PP, TPO, TPV	 ASAHI KASEI: Thermylene® CELANESE: Santoprene® ENPLAST: ENFLEX®, RAVATUF® RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN®
	Engine Air Cleaner Housings	Bondable, Chemical Resistance, Heat Resistance, Surface Appearance	PP	ASAHI KASEI: Thermylene® RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN®
	5 Fans/Shrouds	Chemical Resistance, Heat Resistance, High Stiffness	PA, PP, TPV	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid® CELANESE: Santoprene® ENPLAST: EZPRENE® RAVAGO MANUFACTURING: EnViramid®, HYLON®, MAFILL®, SCOLEFIN®
	6 Active Grill Shutters	Chemical Resistance, Heat Resistance, High Stiffness	PA 6, PP	 ASAHI KASEI: Thermylene® BASF: Ultramid® RAVAGO MANUFACTURING: EnViramid®, HYLON®, MAFILL®, SCOLEFIN®
	Fluid/Coolant Handling Connectors, Radiator End Tanks	Chemical Resistance, Heat Resistance, High Stiffness	Hydrolysis Resistant PA 6, PA 66, PBT	 ASCEND: Vydyne® BASF: Ultradur®, Ultramid® CELANESE: Celanex® EMS-GRIVORY: Grivory® RAVAGO MANUFACTURING: HYLON®
	Brake System Components	Chemical Resistance, Heat Resistance, High Stiffness, Low Temperature Toughness, Wear/Lubricity	PA 6, PA 66, PBT, PET, PP	 ASCEND: Vydyne® BASF: Ultradur®, Ultramid® CELANESE: Celanex® FORMOSA: Formolene® INEOS: PP RAVAGO MANUFACTURING: HYLON®
	9 Fuel Vapor Canister	Chemical Resistance, Stiffness & Strength	PA 6, PA 66, PP	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid® RAVAGO MANUFACTURING: EnViramid®, HYLON®, MAFILL®, SCOLEFIN®
5 6 7 8	Suspension Components	Chemical Resistance, Impact Resistance, Toughness/ Strength	PA 6, PA 66, POM, PP	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid®, Ultraform® CELANESE: Celcon®, Hostaform®, Santoprene® RAVAGO MANUFACTURING: HYLON®, MAFILL®, SCOLEFIN®

ELECTRIC VEHICLES

The next generation of automobiles is here, and as Electric Vehicles expand in the market we will all be faced with new challenges. Technical performance criteria goes beyond standard physical and mechanical properties, and materials will need to overcome stringent requirements including high and/or continuous temperature, high voltage, chemical resistance, and EMI shielding. With our technical experts, broad range of EV compatible materials, and strategically placed warehouses, Entec will power comprehensive solutions for your Electric Vehicle program.



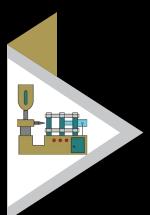
DESIGN

Entec supports our customers by reviewing part and tool design, troubleshooting mold flow and CAE requirements so your process runs efficiently.



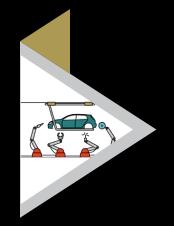
TESTING

We pride ourselves in verification of part performance, ensuring all critical technical requirements are met.



PROCESSING

Our technical experts can optimize the processing window for dimension, appearance, and cycle time.



MANUFACTURING

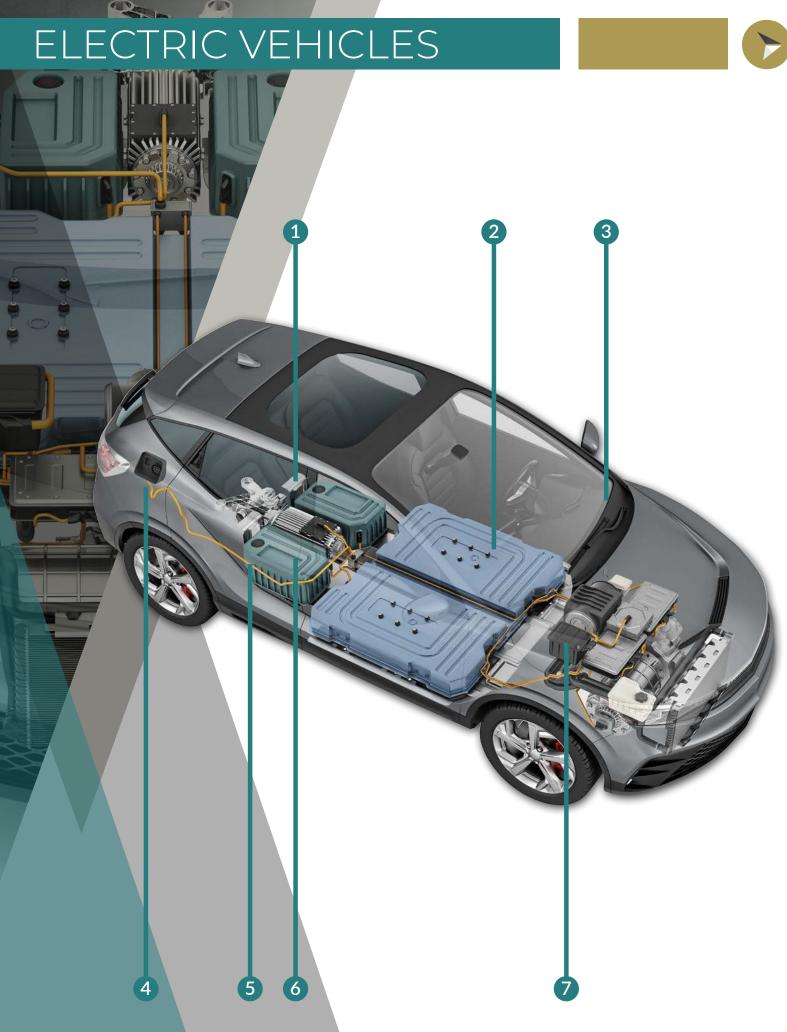
We partner with our customers to provide support during every step of their program, even after production has started.



Entec Understands The Future of EV

- Description Electric vehicles are certainly at the forefront of modern automotive design. What are the unique differences that drive these new vehicles? What are the performance demands? We are working with the OEM's to help conquer these obstacles and verify the sustainability.
- New challenges of more electrical components located around the entire vehicle. Power components in the interior trim are still growing rapidly. Touch screens that enhance the driver/passenger experience and offer what seems to be limitless options to what our vehicles can do. Surprise and delight features that offer more challenges beyond standard mechanical designs.
- Tackle flame retardant and high heat system criteria. Passing electrical testing that must endure stringent environmental swings and chemical challenges. Diverse material options are right here to enhance your design solution.





	APPLICATION	KEY CRITERIA	POLYMER TYPE	SUPPLIER & BRAND
1	Coil Bobbins	Abrasion Resistance, Dimensional Stability, Heat Resistance, Low Temperature Toughness	PA 6, PA 66, PBT	 ASCEND: Vydyne[®] BASF: Ultradur[®], Ultramid[®] CELANESE: Celanex[®] EMS-GRIVORY: Grivory[®] RAVAGO MANUFACTURING: EnViramid[®], HYBRID, HYLON[®]
2	Battery Cooling Tubing	Chemical Resistance, Heat Resistance, Impact Resistance	PA 66, PA 6/12, PA 12, PP, TPV	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid® CELANESE: Santoprene® EMS-GRIVORY: Grivory® RAVAGO MANUFACTURING: EnViramid®, HYLON®
3	Fuse & Junction System	Dimensional Stability, Electrical Performance, Heat Resistance, Low Temperature Toughness	PA 6, PA 66, PBT PSU	 ASCEND: Vydyne® BASF: Ultradur®, Ultramid®, Ultrason® CELANESE: Celanex® EMS-GRIVORY: Grivory® RAVAGO MANUFACTURING: EnViramid®, HYBRID, HYLON®
4	Charge Ports	Dielectrical Strength, Dimensional Stability, Heat Resistance, High Voltage Resistance	PA 6, PA 66, TPV	 ASCEND: Vydyne[®] BASF: Ultramid[®] CELANESE: Santoprene[®] EMS-GRIVORY: Grivory[®] ENPLAST: ENFLEX[®] RAVAGO MANUFACTURING: EnViramid[®], HYLON[®]
5	Wire Harness Troughs/Fasteners	Chemical Resistance, Dimensional Stability, Heat Resistance, Stiffness & Strength	PA, PP	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid® RAVAGO MANUFACTURING: EnViramid®, HYLON®, MAFILL®, SCOLEFIN®
6	Power Distribution Boxes, Sensors, Housings, Connectors	Chemical Resistance, Dimensional Stability, Electrical Performance, Heat Resistance, High Voltage Resistance, Low Temperature Toughness	PA 6, PA 66, PBT, PPO/HIPS, PPO/PA, PPS, POM	 ASAHI KASEI: Thermylene®, Xyron® ASCEND: Starflam®, Vydyne® BASF: Ultradur®, Ultramid®, Ultrason® CELANESE: Celanex®, Fortron® EMS-GRIVORY: Grivory® RAVAGO MANUFACTURING: EnViramid®, HYBRID, HYLON® TRINSEO: Magnum™, Pulse™
7	Battery Housing/ Tray	Chemical Resistance, Heat Resistance, Impact Resistance	GF PP, PA 66	 ASAHI KASEI: Thermylene® ASCEND: Starflam® RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN®

Automotive Solutions LIGHT-WEIGHTING

Entec Design Strategy

- Seeking weight reduction is still a central focus in the Automotive segment. Let us help you and your team mitigate any risks by assisting with the evaluation of the design related to FEA, molding, or assembly. We have the technical experience to set up primary directives that will ensure the best performing part in the optimal weight condition.
- Migrating a part design from metal to plastic seems challenging enough so we encourage you to let our material experts assist you along the path. Environment? Apparent modulus? Impact? Aesthetics? These are just a few of the key critical criteria we will take in to consideration upon design maturation.
- Material choices for the application are what we do best. Interior Trim, Exterior Trim, PTUH components have been a part of our history and our toolbox of solutions will provide the answers you need to process and validate your parts the first time. We want to optimize your material option!

HEAVY TRUCK

Entec Commercial Transportation

- Commercial transportation is the ultimate challenge of durability and extreme environments. We anticipate the needs of these components must survive at least 5 times the normal amount of usage and abuse.
- Heavy trucks are maturing faster every lifecycle. Longer testing with more service representatives, cosmetic functionality, bigger and heavier components bring the ultimate challenge of design. Competition and demand are rising as the economy continues to grow and the heavy truck market battles to keep up.



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	APPLICATION	KEY CRITERIA	POLYMER TYPE	SUPPLIER & BRAND
1	Fairing Support	Chemical Resistance, Heat Resistance, High Stiffness, Impact Resistance	PA 6, PA 66	 ASCEND: Vydyne® BASF: Ultramid® RAVAGO MANUFACTURING: EnViramid®, HYLON®
2	Door Handles & Storage Latches	Chemical Resistance, Good Stiffness, Impact Resistance, Paintable/Platable, UV Resistance/ Weatherable	ABS, PC-ABS, PA 6, PBT, POM, PP	 ASAHI KASEI: Thermylene® BASF: Ultraform®, Ultramid® CELANESE: Celcon®, Celanex® CHIMEI: Polylac® INEOS STYROLUTION: Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: EnViramid®, HYBRID, HYLON® TRINSEO: Magnum™, Pulse™
3	Wheel Liners	Chemical Resistance, Good Surface Appearance, Low Temperature Toughness, Stiffness & Strength	PP, TPO	 ASAHI KASEI: Thermylene® ENPLAST: RAVATUF® LYONDELLBASELL: Hostacom RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN®
4	Wheel Covers	Chemical Resistance, Impact Resistance, Paintable/ Platable, UV Resistance/ Weatherable	PA 6, PA 66, TPO	 ASAHI KASEI: Thermylene® BASF: Ultramid® ENPLAST: RAVATUF® RAVAGO MANUFACTURING: HYLON®
5	Underbody Aero Shield	Bondable, Chemical Resistance, Good Surface Appearance, Low Temperature Toughness, Stiffness & Strength	PA 6, TPO	 ASAHI KASEI: Thermylene® BASF: Ultramid® ENPLAST: RAVATUF® RAVAGO MANUFACTURING: HYLON®
6	Side Fairings	Chemical Resistance, Impact Resistance, Paintable, Stiffness & Strength, UV Resistance/Weatherable	PPE, TPO	 ASAHI KASEI: Xyron® ENPLAST: RAVATUF® LYONDELL BASELL: Hostacom
7	Splash Guards	Chemical Resistance, Heat Resistance, High Stiffness	PP, TPE, TPV	 ASAHI KASEI: Thermylene® CELANESE: Santoprene® ENPLAST: ENFLEX®, EZPRENE® RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN®
8	Mud Guards	Chemical Resistance, Stiffness & Strength, UV Resistance/ Weatherable	PE, TPE, TPO, TPV	 ENPLAST: ENFLEX®, EZPRENE®, RAVATUF® ENTEC: ECHO® LUBRIZOL: Estagrip®
9	Mirrors	Chemical Resistance, Good Stiffness, Impact Resistance, Paintable/ Platable, UV Resistance/ Weatherable, Wear Resistance	ABS, ASA, PC- ASA, PA, PPA	 ASCEND: Vydyne® BASF: Ultramid® CHIMEI: Polylac® EMS-GRIVORY: Grivory® INEOS STYROLUTION: Luran®S, Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYBRID, HYLON® SAMYANG: Triloy® TRINSEO: Magnum™, Pulse™
10	Rain Tray/Cowl	Chemical Resistance, Low Temperature Toughness, Stiffness & Strength	PP, TPO	 ASAHI KASEI: Thermylene® ENPLAST: RAVATUF® LYONDELL BASELL: Hostacom RAVAGO MANUFACTURING: MAFILL®, SCOLEFIN®
11	Underhood/ Powertrain	Chemical Resistance, Heat Resistance, Low Temperature Toughness, Stiffness, Strength, Surface Appearance	PA 6, PA 66, PP	 ASAHI KASEI: Thermylene® ASCEND: Vydyne® BASF: Ultramid® RAVAGO MANUFACTURING: EnViramid®, HYLON®, MAFILL®, SCOLEFIN®
12	Grille Components	Chemical Resistance, Impact Resistance, Paintable/ Platable, Stiffness & Strength, UV Resistance/Weatherable	ABS, PC-ABS, ASA, PP, TPO	 ASAHI KASEI: Thermylene® CHIMEI: Polylac® ENPLAST: RAVATUF® INEOS STYROLUTION: Luran®S, Lustran®, Novodur® RAVAGO MANUFACTURING: HYBRID, MAFILL®, SCOLEFIN® SAMYANG: Triloy® TRINSEO: Magnum™, Pulse™
13	Lights & Housings	Bondable, Heat Resistance, Impact Resistance, Paintable/ Platable	ABS, PC-ABS, ASA, PA, PC, PMMA, PP	 ASCEND: Vydyne® BASF: Ultramid® CHIMEI: Acryrex®, Polylac® INEOS STYROLUTION: Luran®S, Lustran®, Novodur®, Terluran® RAVAGO MANUFACTURING: HYLON®, MAFILL®, SCOLEFIN® SAMYANG: Trirex® TRINSEO: Emerge™, Magnum™, Pulse™
14	Bumper Fascia, Hood & Fenders	Chemical Resistance, Impact Resistance, Low Temperature Toughness, Paintable, Stiffness & Strength, UV Resistance/Weatherable	ASA, PA 6, PC- ABS, PP, TPO	 ASAHI KASEI: Thermylene® BASF: Ultramid® ENPLAST: RAVATUF® INEOS STYROLUTION: Luran®S RAVAGO MANUFACTURING: HYBRID, HYLON®, MAFILL®, SCOLEFIN® TRINSEO: Pulse™