



Resin Guide



PERFORMANCE. SPECIALISTS. SOLUTIONS.

At PMC, we are so much more than just TPO....We also produce ABS, decorative films, high-performance cap layers and all combinations in between. We believe in going beyond the products and doing more.


Performance - We produce highly engineered thermoformable sheet that will deliver the results you expect from your high-performance finished products. In addition to being ISO certified, we follow strict and extensive guidelines to ensure that our sheet products are of the highest quality and result in peak performance.

Specialists - We pride ourselves on our high-performance products and high-performance people. We believe that hiring the right employees and providing them with the right training so they can be the best in the industry is just as important as the products we sell. You can count on PMC to be your Go-To-Guys no matter what your needs are.

Solutions - Not only do we provide a wide range of products, we provide solutions, too. Our team of specialists will pinpoint the right product, work with you to tackle all your tough projects, and stay with you through any hurdles you may encounter along the way. We know the custom thermoforming industry is constantly changing, and so are we.

Through the growth of our manufacturing operations, and acquisition by world leading thermoplastics manufacturer SIMONA, we are proud to offer cutting-edge technologies and services to the markets we serve. We invite you to visit our facilities any time for a guided tour.





Acrylonitrile Butadiene Styrene is a terpolymer alloy that is known for good impact resistance high stiffness, resistance to creep, ease of processing and versatility, which makes it one of the most widely used thermoplastics in the industry.

PMC offers a number of ABS options based on desired impact and surface performance. ABS will break down when exposed to UV light but that can be prevented by adding one of our weather-resistant cap layers.

Co-extruded ABS products come in a variety of colors, textures, and gloss levels.

TYPES

- // UV Resistant
- // High Impact
- // Medium Impact
- // Low Impact
- // Flame Retardant

HIGH PERFORMANCE CAPS

- // ASA (Weatherable High Gloss)
- // Soft Touch
- // Decorative Film
- // Acrylic (Weatherable High Gloss)
- // Vinyl
- // Low Gloss

POPULAR APPLICATIONS

- // Heavy Truck Cab Interior
- // Electrical Housings
- // Cargo Haulers
- // Automotive Electronics
- // Computer Components



Vinyl-Laminated ABS

SIMONA PMC's Vinyl/ABS products offer a textured, leather-like appearance and a refined, sophisticated feel. While maintaining dependable performance for forming applications, it retains the durability and rigidity to withstand wear and tear. A vinyl foam composite is laminated over ABS to create a piece that mimics hand-wrapped parts and is impervious

to scratches and marring. By adding vinyl, the regrind cannot be reused and the depth of draw is slightly decreased.

Vinyl/ABS is like a high-performance leather. It has a sophisticated look and feel while also providing the lasting durability required for a high-performance lifestyle.

POPULAR APPLICATIONS

// Van Interior

// Automotive Interior

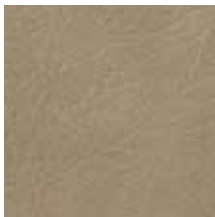
// ATV Components

// Marine Dashboards

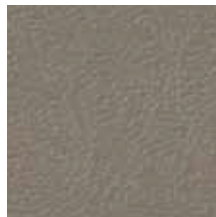
// Recreational Vehicle

// Explorer Van Interior

STOCK COLORS



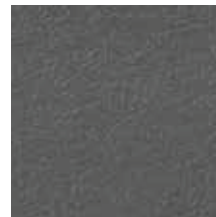
Tan



Prairie Tan



Med. Neutral



Graphite



Med. Gray



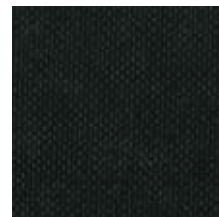
Charcoal



Dark Portland
Gray



Black



Black Flex



PC/ABS

SIMONA PMC

Alloying Polycarbonate blended with ABS results in the best of both worlds. You get the ease of processing ABS and the durability of polycarbonate. This combination also improves heat deflection temperature, stiffness, and low-temperature impact resistance. It requires a cap or coating for weatherability and can be challenging to process,

but because it is easy to paint and has a high flex modulus, it is always in demand.

PC/ABS saves time and money when compared to using metal by reducing the number of tools needed to process a piece. It's also rigid and tough but still pliable enough to form features that are not possible with metal.



POPULAR APPLICATIONS

- // Structural Parts
- // Exterior Body Panels
- // Electronics
- // Prototypes
- // Heavy Truck Bumpers
- // Telecommunications Application

FR PC/ABS

This specific blend of polycarbonate and ABS with fire retardant additives meets stringent regulations for fire behavior, electrical safety, and resistance to chemicals, hydrolysis and heat. The sheet has good impact toughness at a wide temperature range, has excellent thermoforming properties, and is easy to machine.

Flame Characteristics

(based on final part thickness):

UL94V-2

(0.75mm: burning stops within 30 seconds on a vertical specimen)

UL94V-0

(1.5mm: burning stops within 10 seconds on a vertical specimen)

UL94V5VB

(2.0mm: burning stops within 60 seconds on a vertical specimen)

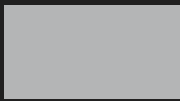
UL94V5VA

(3.0mm: burning stops within 60 seconds on a vertical specimen)

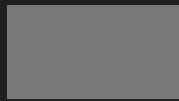
POPULAR APPLICATIONS

- // Mass-Transit
- // Appliance Parts
- // Electrical Enclosures
- // Medical Diagnostic Equipment Covers





Good



Better



Best

MATERIALS

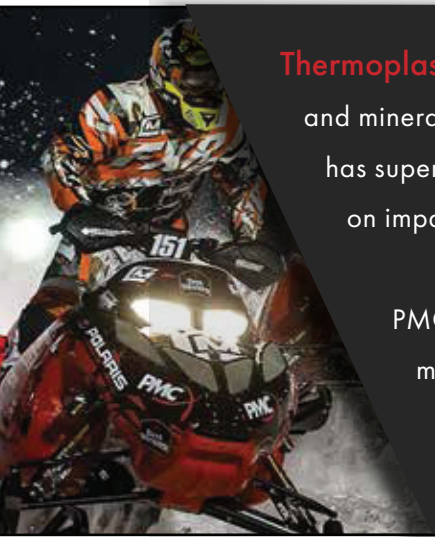
	DENSITY	STIFFNESS	TENSILE STRENGTH	IMPACT TOUGHNESS
ABS	Medium Gray	Medium Gray	Medium Gray	Light Gray
Low Gloss ABS	Medium Gray	Medium Gray	Medium Gray	Light Gray
PMMA -capped ABS	Medium Gray	Medium Gray	Medium Gray	Light Gray
FR ABS	Medium Gray	Medium Gray	Medium Gray	Light Gray
Vinyl-Laminated ABS	Medium Gray	Medium Gray	Medium Gray	Light Gray
HIPS	Medium Gray	Medium Gray	Medium Gray	Light Gray
Copolymer PP Alloys	Light Gray	Light Gray	Medium Gray	Medium Gray
TPO	Medium Gray	Medium Gray	Medium Gray	Red
High Melt Strength	Medium Gray	Medium Gray	Medium Gray	Red
Utility TPO	Medium Gray	Medium Gray	Medium Gray	Red
High Gloss TPO	Medium Gray	Medium Gray	Medium Gray	Red
Low Gloss TPO	Medium Gray	Medium Gray	Medium Gray	Red
FR TPO	Medium Gray	Medium Gray	Medium Gray	Medium Gray
Soft-touch TPO (Exultra™ 2000)	Medium Gray	Medium Gray	Medium Gray	Red
Acrylic-capped TPO (StrataGem™ SMR)	Medium Gray	Medium Gray	Medium Gray	Red
PC/ ABS	Red	Red	Red	Red
FR PC/ ABS	Red	Red	Medium Gray	Medium Gray

This information is for comparison purposes only. The information is based on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, suitability, accuracy, reliability, or completeness of this information or the products, materials, or processes described.

THERMAL EXPANSION	HEAT DEFLECTION TEMPERATURE	HARDNESS	SCRATCH & MARRING RESISTANCE	UV RESISTANCE	CHEMICAL RESISTANCE	EASE OF COATING & BONDING	THERMOFORMING PROCESS WINDOW	RESISTANCE TO FLAMMABILITY	RECYCLABILITY
Grey	Grey	Grey	Grey	Light Grey	Light Grey	Red	Red	Light Grey	Red
Grey	Grey	Grey	Red	Light Grey	Light Grey	Red	Red	Light Grey	Red
Grey	Grey	Grey	Red	Red	Grey	Red	Red	Light Grey	Grey
Grey	Grey	Grey	Grey	Light Grey	Light Grey	Red	Red	Red	Grey
Grey	Grey	Light Grey	Red	Grey	Light Grey	Red	Grey	Light Grey	Light Grey
Grey	Light Grey	Grey	Red	Light Grey	Light Grey	Red	Red	Light Grey	Red
Grey	Grey	Light Grey	Light Grey	Grey	Red	Light Grey	Light Grey	Light Grey	Red
Red	Red	Light Grey	Light Grey	Grey	Red	Grey	Grey	Light Grey	Red
Red	Grey	Light Grey	Light Grey	Grey	Red	Grey	Grey	Light Grey	Red
Red	Grey	Light Grey	Light Grey	Grey	Red	Grey	Light Grey	Light Grey	Red
Red	Grey	Light Grey	Grey	Grey	Red	Grey	Grey	Light Grey	Grey
Red	Grey	Light Grey	Grey	Grey	Red	Grey	Grey	Light Grey	Red
Red	Grey	Light Grey	Light Grey	Light Grey	Grey	Grey	Light Grey	Red	Grey
Red	Grey	Light Grey	Light Grey	Grey	Red	Grey	Grey	Light Grey	Grey
Red	Grey	Grey	Red	Red	Grey	Grey	Grey	Light Grey	Grey
Grey	Red	Red	Red	Light Grey	Grey	Grey	Grey	Grey	Grey
Grey	Red	Red	Red	Light Grey	Grey	Grey	Grey	Red	Grey

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TPO



Thermoplastic Polyolefin is a compounded alloy of polypropylene, elastomers and mineral fillers offering a unique balance of stiffness and thermal expansion. TPO has superior weatherability so it does not require a cap, and it ranks extremely high on impact and chemical resistance.

PMC offers a wide range of different types and combinations of TPO which make us the leading supplier in the industry. Not only does PMC produce TPO in custom colors and finishes, we also make specialized grades to satisfy a range of needs.

TPO is a great replacement for powder coated metal parts due to being lighter weight, more cost effective, and easier to form.

TYPES

- // High Melt Strength
- // Surface Durability
- // Utility
- // Flame Retardant

CAPS

- // High or Low Gloss
- // Soft-touch TPO (Exultra™ 2000)
- // Acrylic-capped TPO (StrataGem™ SMR)
- // Decorative Film
- // Specialty

POPULAR APPLICATIONS

- // Exterior Panels
- // RV Parts
- // UTV Door Panels
- // ATV Roofs
- // Snowmobile Hoods
- // Heavy Truck Exterior





High Impact Polystyrene is a versatile, economical and impact-resistant plastic that is easy to machine and fabricate. HIPS is often specified for low-strength structural applications when impact resistance, machinability, and low cost are required. Even though it needs a cap layer for weathering and has low resistance to chemicals, it's easy to bond, paint, and print on, which are necessary for some applications. It also retains its properties after being recycled and that saves money.

Despite the name it has low impact resistance when compared to other thermoformable materials, however, it has a higher impact rating within its family of polystyrenes due to the fact that it has been rubber modified.

POPULAR APPLICATIONS

// Horticulture Trays

// Garage Door Insert Panel

// Containers for Hot/Cold Beverages

// Toys

// Point-of-Purchase Displays



COPOLYMER PP ALLOY



Copolymer Polypropylene Alloy is the best product for those projects in the fast lane... literally. Because it has good wear and heat deflection and doesn't require a cap for weathering, it is ideal for producing body panels for race cars. This product offers improved impact resistance, weight reduction, and enhanced rigidity.

POPULAR APPLICATIONS

// Race Car Body Panels

// Bumper Facias

// Marine Components

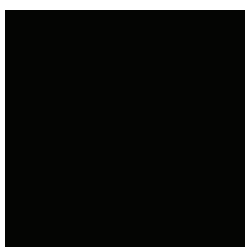
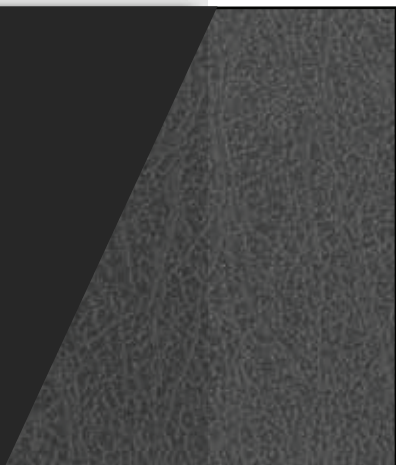
// Instrument Panels

// Door Trim

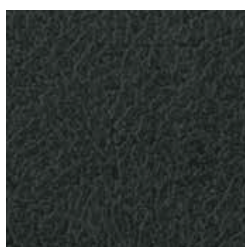
EXTRAS

Textures & Finishes

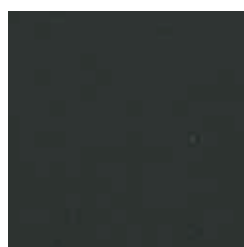
PMC offers five different textures and finishes. By applying a texture or sheen to a product you can add richness, depth, and shine to a part's appearance, making the part more marketable, and therefore giving it a higher value. Texture can also deliver visual enhancements on difficult-to-form parts. From the glass-like finish on the High Gloss to the intricate landscape of the Seville, we can provide you a look that is guaranteed to get noticed



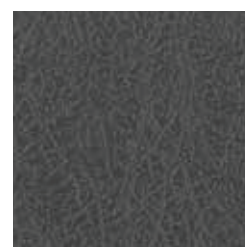
Smooth High Gloss



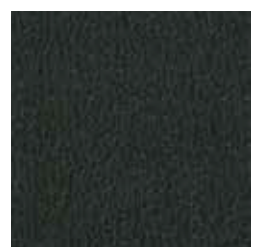
Saddle



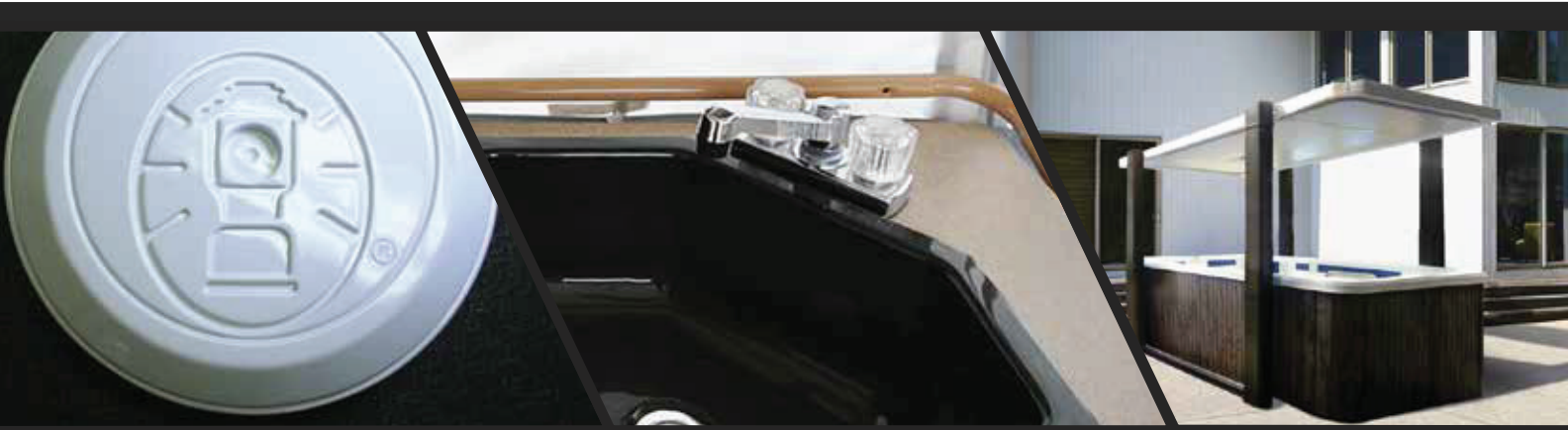
Calf



Seville



Haircell



PMC Material Weight Factors

Material	Weight (lbs/in ³)
Copolymer PP Alloys	0.034
ABS	0.039
HIPS	0.039
TPO	0.0405
Acrylic-capped ABS	0.041
PC/ABS	0.0415-0.045
FR PC/ABS	0.044
FR ABS	0.046
Vinyl-Laminated/ABS	N/A

PMC Material Specifications

Thickness	0.020" - 0.400"
Width	24" - 112"
Layers	Mono 2 Layer (co-extrusion) 3 Layer (co-extrusion)
Lamination	In-line Off-line





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