

PMC® 410 and PMC® 420

High Density Polyethylene (HDPE)

for General Thermoforming

HDPE is useful in a variety of thermoforming applications, offering a winning combination of exceptional impact resistance, easy formability, and resistance to harsh environmental conditions. PMC® 410 provides a strong, lightweight solution, while PMC® 420, with its enhanced melt strength, takes it a step further, ensuring even greater toughness and durability. These versatile polymers are the top choice for a wide range of thermoformed parts, delivering reliable performance and cost-effective solutions.



Available Materials from SIMONA PMC

PMC® 410

- Durable, HDPE sheet – ideal for lightweight, impact-resistant products with great versatility.

PMC® 420

- High Molecular Weight Polyethylene sheet excels in challenging thermoforming projects, offering exceptional "depth of draw" capability for superior performance and durability.

What is HDPE?

HDPE or high-density polyethylene, is a polymer known for its robust properties. It boasts outstanding durability and low thermal expansion, making it a versatile material for various applications. HDPE demonstrates exceptional weather resistance, eliminating the need for additional surface treatment, and it excels in both impact and chemical resistance.

PMC® 410 is an excellent general-purpose HDPE grade that provides durability in applications such as wall panels, flooring, or dividers. PMC® 420 is invaluable in thermoforming applications, offering a winning combination of exceptional impact resistance, easy formability, and resistance to harsh environmental conditions. HDPE provides a strong, lightweight solution, while HMWPE, with its extended molecular weight, takes it a step further, ensuring even greater toughness and durability. These versatile polymers are the top choice for a wide range of thermoformed parts, delivering reliable performance.

SIMONA PMC 410® and 420® PERFORMANCE DETAILS



PROPERTIES

Property	PMC 410	PMC 420	Units	Test Method
Specific Gravity	0.964	0.955	ISO 1183	ISO 1183
Flexural Modulus	240,000	200,000	psi	ASTM D790
Tensile Strength	4,400	4,000	psi	ASTM D638
HDT	180 (82)	172 (78)	°F (°C)	ASTM D648
Shrink Rate	2 - 2.5	2 - 2.5	%	ISO 294-4

Gauges, Sizes Available

Widths – up to 100” wide

Thicknesses – 0.033” – 0.430”

Textures

- Smooth
- Haircell
- Calf

Colors

- White
- Black
- Custom Colors available upon request, minimums apply

Applications

- General thermoforming
- Interior components
- Agricultural hutches
- Tooling trays and panels
- Flooring and wall covers
- Heavy truck lining and covers

Moisture Resistant

HDPE excels as a moisture-resistant material, making it ideal for applications requiring protection against water and humidity.

Impact Resistant

SIMONA PMC 410® and 420® offers exceptional impact resistance, ensuring durability in a variety of applications



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