

Extreme™ HG

Compounded Polypropylene

Spartech Plastics

Message:

Extreme™ HG is a high gloss, high performance, thermoplastic olefin (TPO) structure engineered for improved thermoforming characteristics. Extreme™ HG provides a wide processing range, enabling consistent, controlled sag sheet for stable thermoforming. For OEMs, Extreme™ HG provides excellent cold crack resistance, outstanding chemical resistance, a high gloss molded-in-color surface. Along with the improved processing window, Extreme™ HG provides the most cost effective TPO in marketplace for large part thermoforming applications.

Features and Benefits

- High gloss cap surface
- Tough, high impact TPO structure
- Integral UV-protective packages for cap and substrate
- Wide thermoforming processing window
- Resilient to high vibration application
- Low CLTE for dimensional stability

Target Markets & Applications

- Extreme™ HG is a great choice for a wide range of applications and market segments
- Agricultural & Construction Equipment - for engine hoods, covers, fenders, instrument panels
- Medium & Heavy Truck - for tank cover, air deflector, bumpers
- Recreational Vehicles - for front caps, end caps, ground effects
- Power Sports - for ATV fenders, flares, body armor, front hoods, canopies, accessories
- Automotive Aftermarket - for tonneau covers, scoops / spoilers, ground effects, step ups
- Lawn & Garden - for fenders, front hoods, instrument fronts, mower decks, canopies
- Marine - for kayak and paddle boat decks, instrument panels, light pods, storage covers

Processing

Extreme™ HG can be thermoformed in standard thermoforming ovens, although zoned ceramic or quartz heaters are recommended. Forming over temperature-controlled aluminum tooling results in the best part aesthetics. Molds made from fiberglass or epoxy, can be used for tooling prototyping or small part runs. Care must be taken in forming to heat sheet evenly and not overheat. Stock temperatures of approximately 340°F - 360 °F are recommended targets, but each process should be adjusted to allow proper forming. As with any thermoplastic material, coefficient of thermal expansion and mold shrinkage should be considered for proper part fit and tooling design.

Colors & Textures

Extreme™ HG can be matched in a wide variety of custom colors. Metallic colors available.

Availability Textures - Smooth, hair cell and calf

Availability

- Extreme™ HG is a custom extruded sheet product
- Sheet Size maximum width is 92-inch
- Gauges 0.060 - 0.400-inch
- Minimum Order - 5,000 lbs.

General Information	
Additive	UV Stabilizer
Features	Good Dimensional Stability
	Good Toughness
	Good UV Resistance
	High Gloss
	High Impact Resistance
Uses	Vibration Damping
	Agricultural Applications
	Automotive Applications
	Automotive Bumper

Automotive Exterior Parts
 Construction Applications
 Lawn and Garden Equipment
 Marine Applications
 Sporting Goods

Appearance	Colors Available		
	Finishes Available		
Forms	Sheet		
Processing Method	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.08 to 1.13	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)	0.70	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	21.4	MPa	ASTM D638
Flexural Modulus	1860	MPa	ASTM D790
Flexural Strength	66.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	350	J/m	ASTM D256
Gardner Impact	30.5	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 4.57 mm)	116	°C	ASTM D648
CLTE - Flow (-30 to 30°C)	4.0E-5	cm/cm/°C	ASTM D696
Optical	Nominal Value		Test Method
Gardner Gloss	85		ASTM D523

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