

HIPS High Gloss

High-Impact Polystyrene Sheet · Mirror-Finish Grade

GLOSS @ 60°
98

GU · Mirror-finish HIPS

CHARACTERISTICS

- Outstanding surface gloss — 98 GU @ 60°
- Mirror-bright finish, excellent reflectivity
- Easy printing, hot-foil, decoration
- Food-contact compliant — FDA 21 CFR 177:1640
- Wide colour range — Pantone, RAL, NCS matched

APPLICATIONS

- Cosmetic & personal-care packaging
- Premium food packaging — chocolate, gifts
- POS displays — high-shine retail signage
- Consumer electronics housings — entry level
- Office supplies · folders · premium covers

COMPLIANCE UL 94 HB · UL File E185934 · FDA 21 CFR 177:1640 · RoHS · REACH SVHC · ISO 9001:2015

TYPICAL PROPERTIES All values are typical · ASTM test methods · injection-moulded specimens unless noted

PROPERTY	TEST METHOD	VALUE	UNIT
MECHANICAL			
Tensile Strength	ASTM D638	32	MPa
Elongation @ Break	ASTM D638	25	%
Flexural Strength	ASTM D790	46	MPa
Flexural Modulus	ASTM D790	2100	MPa
IMPACT			
Notched Izod @ 23 °C	ASTM D256	61	J/m
Notched Izod @ -23 °C	ASTM D256	On request	
PHYSICAL			
Specific Gravity	ASTM D792	1.05	g/cm³
Melt Flow Index	ASTM D1238	5.0	g/10 min
Mould Shrinkage	ASTM D955	0.4 - 0.7	%
Residual Styrene	SPL/QCA	< 1000 ppm	
SURFACE			
Gloss @ 60°	ASTM D523	98	GU

PROPERTY	TEST METHOD	VALUE	UNIT
THERMAL			
HDT @ 1.86 MPa	ASTM D648	On request	
Vicat Softening Point	ASTM D1525	98	°C
HDT @ 0.45 MPa	ASTM D648	On request	
FLAMMABILITY			
UL 94 @ 1.6 mm	UL 94	HB	
UL File Reference	UL	On request	
PROCESSING			
Pre-drying Temperature	—	50 - 80	°C
Pre-drying Time	—	2	hours
Forming Temperature	—	160 - 200	°C
Mould Temperature	—	40 - 60	°C
Maximum Melt Temp.	—	180 - 240	°C

NOTES

Tests on injection-moulded specimens at 23 °C, 50 % RH per ASTM standards. Tensile / Elongation @ 50 mm/min. Flexural and Izod on 3.2 mm specimens. MFI @ 200 °C / 5 kg. Gloss measured @ 60° per ASTM D523 — typical value 98 GU (mirror-bright finish). Resin sourced from Supreme Petrochem (SH-400E grade family) and other globally certified suppliers. FDA 21 CFR 177:1640 compliant. RoHS verified by SGS (EU 2015/863). Values are typical, intended as guide only. Final product suitability must be validated under application conditions.

PERFORMANCE PROFILE

98

GU Gloss

Mirror-bright surface @ 60°

61

J/m Izod

Notched-impact toughness

98

°C Vicat

Heat softening point

FDA

21 CFR 177

Food-contact compliant

Mirror-finish HIPS — cosmetic, premium pack, POS and consumer-goods grade.

APPLICATIONS

Where HIPS High Gloss gets specified — mirror-bright thermoforming sheet for cosmetic, premium food packaging, POS displays, and high-shine consumer applications.

COSMETIC Personal Care Pack	PREMIUM PACK Chocolate · Gift Boxes	POS DISPLAY Mirror-Shine Retail	CONSUMER Electronics · Office
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Cosmetic Packaging

Cosmetic tubs, lipstick cases, makeup palettes, premium personal-care pack. Mirror finish, easy hot-foil decoration.

Premium Food Pack

Chocolate trays, gift box inserts, premium confectionery packaging. FDA 21 CFR 177 food-contact compliant.

POS & Displays

Retail displays, point-of-sale stands, high-shine signage. Eye-catching mirror finish with full colour matching.

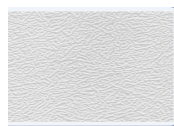
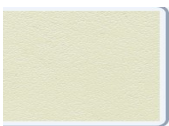
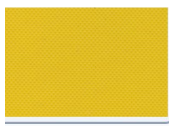
Consumer Goods

Entry-level electronics housings, premium folders, office accessories, decorative covers and trim panels.

PRODUCTION SPECIFICATIONS

Sheet Thickness	0.3 – 8 mm	Common range 0.4 – 4.0 mm for premium thermoforming
Sheet Width	up to 2500 mm	XL line capacity
Sheet Length	up to 6 m	Custom cut-to-size on request
Thickness Tolerance	± 5 %	Multi-point validated
Layer Structure	Mono / ABA	Co-extrusion option for skin-core differentiation
Colour Matching	Pantone · RAL · NCS	Spectrophotometer ΔE validation, batch-traced

SURFACE TEXTURES

					
T01 Regular	T02 Fine	T03 Diamond	T04 Fine Diamond	T05 Plain Smooth	T06 FM06

HOW TO READ THESE NUMBERS

Quick reference for what each test actually tells you about how the sheet behaves.

▪ Tensile Strength Pulling force before sheet starts to permanently stretch.	▪ Elongation How far it stretches before snapping. Higher = more forgiving.	▪ Flexural Strength Bending force before fracture. Higher = stronger when flexed.	▪ Flexural Modulus Bending stiffness. Higher = more rigid feel when flexed.
▪ Notched Izod Impact resistance with stress notch. Survives drops and hits.	▪ Specific Gravity Density vs water. 1.03 means just heavier than water.	▪ MFI Melt flow index — how easily molten plastic flows. Affects formability.	▪ HDT / Vicat Heat at which it sags (HDT) or softens (Vicat). Short-term limits.
▪ Gloss @ 60° Surface shine measurement. 98 GU = mirror-bright finish. 85+ is considered high gloss.	▪ FDA 21 CFR 177 Food contact safety — base resin meets US FDA regulation for food contact applications.	▪ UL 94 HB Horizontal burn rating — slow, controlled burn rate. Standard for non-FR HIPS.	▪ Residual Styrene Unreacted styrene monomer in resin. Lower = lower migration into food.

STELLAR-EX

Sheet Extrusion Excellence

INDU THERMOFORMERS PVT. LTD. / FORMPACK

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 Values are typical and intended as a guide only. Validate for application. Resin: Supreme Petrochem (SH-400E) and other globally certified suppliers.

ISO 9001 : 2015

Quality Management Certified

GSTIN 27AADCM9861D1ZA

Established 1985