

ABS General Purpose

Acrylonitrile Butadiene Styrene Sheet · Extruded

UL 94 RATING

HB

Standard horizontal burn

CHARACTERISTICS

- Excellent thermoformability and deep-draw
- High impact strength and surface toughness
- Easily painted, printed, bonded and decorated
- Wide finish range — matt, gloss, textured
- Any colour matched — Pantone, RAL, NCS

APPLICATIONS

- Medical equipment housings & covers
- Appliance panels — washing machines, fridges
- Sanitary & bath products — seats, enclosures
- Automotive interior trim & panels
- POS displays · luggage · industrial covers

COMPLIANCE UL 94 HB · RoHS 6E + 4 phthalates · REACH SVHC · ISO 9001:2015 · Halogen-Free option

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

PROPERTY	TEST METHOD	VALUE	UNIT
MECHANICAL			
Tensile Strength @ Yield	ASTM D638	43.6	MPa
Elongation @ Break	ASTM D638	> 25	%
Flexural Strength	ASTM D790	56.4	MPa
Flexural Modulus	ASTM D790	1913	MPa
IMPACT			
Notched Izod @ 23 °C	ASTM D256	420	J/m
Notched Izod @ -23 °C	ASTM D256	<i>On request</i>	
PHYSICAL			
Specific Gravity	ASTM D792	1.045	g/cm ³
Melt Flow Index	ASTM D1238	7.5	g/10 min
Mould Shrinkage	ASTM D955	0.4 - 0.6	%
Water Absorption	ASTM D570	<i>On request</i>	
HARDNESS			
Rockwell Hardness	ASTM D785	102	R-scale

PROPERTY	TEST METHOD	VALUE	UNIT
THERMAL			
HDT @ 1.8 MPa	ASTM D648	94	°C
Vicat Softening Point	ASTM D1525	<i>On request</i>	
HDT @ 0.45 MPa	ASTM D648	<i>On request</i>	
FLAMMABILITY			
UL 94 @ 1.6 mm	UL 94	HB	
Oxygen Index (LOI)	ASTM D2863	<i>On request</i>	
PROCESSING			
Pre-drying Temperature	—	80 - 85	°C
Pre-drying Time	—	2 - 4	hours
Forming Temperature	—	140 - 170	°C
Mould Temperature	—	60 - 80	°C
Maximum Melt Temp.	—	200 - 230	°C

NOTES

Tests on injection-moulded specimens at 23 °C, 50% RH per ASTM standards. Tensile/Elongation @ 50 mm/min on 3.2 mm specimens. Flexural and Izod on 3.2 mm specimens. MFI @ 220 °C / 10 kg. Resin sourced from Bhansali Engineering Polymers (SE32 grade family) and other globally certified suppliers. RoHS verified by SGS (EU 2015/863). Values are typical, intended as guide only. Final product suitability must be validated under actual application conditions. Halogen-Free, FDA, UV-stabilised and antistatic formulations available on request.

PERFORMANCE PROFILE

HB

UL 94

Standard burn rating @ 1.6 mm

420

J/m Izod

High notched-impact toughness

94

°C HDT

Heat deflection @ 1.8 MPa

102

Rockwell R

Surface hardness rating

All-purpose extruded ABS — the workhorse grade for thermoforming.

APPLICATIONS

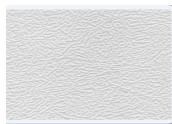
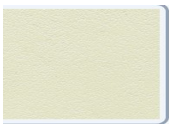
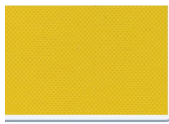
Where ABS General Purpose gets specified — the workhorse extruded ABS sheet for thermoforming across consumer, medical, and industrial sectors.

MEDICAL Housings & Covers	APPLIANCE Washing Machines · Fridges	SANITARY Bath · Enclosures	INDUSTRIAL POS · Luggage · Trim
Medical Equipment Patient-care covers, bath equipment, hygiene products. Cleanable, paintable, formable.	Appliance Panels Washing machine panels, fridge outer covers, microwave housings, vacuum shells.	Sanitary & Bath Toilet seats, shower enclosures, bath panels. Wide-format matt or gloss finish.	Industrial Covers Machine guards, POS displays, luggage shells, automotive interior trim, equipment housings.

PRODUCTION SPECIFICATIONS

Sheet Thickness	0.3 – 10 mm	Common range 1.0 – 6.0 mm for 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.
• Rockwell R Surface hardness. Higher = resists scratches and dents better.	• Mould Shrinkage How much sheet shrinks during cooling. Lower = tighter dimensional control.	• UL 94 HB Horizontal burn rating — slow, controlled burn rate. Standard for non-FR ABS.	• Any Colour Pantone, RAL, NCS matched. Spectrophotometer ΔE validation, batch-traced.

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: Bhansali Engineering Polymers (SE32) and other globally certified suppliers.

ISO 9001 : 2015

Quality Management Certified

GSTIN 27AADCM9861D1ZA

Established 1985