

ABS Impact Modified

ABS Compounded with 5 % Impact Modifier · Extruded

NOTCHED IZOD

510

J/m @ 23 °C · Impact-modifier grade

CHARACTERISTICS

- Compounded with 5 % impact modifier
- +20 % Izod uplift over GP ABS grade
- Retained toughness down to -23 °C
- Higher elongation, improved ductility
- Wide colour range — Pantone, RAL, NCS matched

APPLICATIONS

- Heavy-duty equipment housings & medical
- Luggage shells, tool & equipment cases
- Automotive impact-prone interior parts
- Cold-storage & outdoor applications
- Drop-tested products · protective 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	ASTM D638	41	MPa
Elongation @ Break	ASTM D638	> 30	%
Flexural Strength	ASTM D790	53	MPa
Flexural Modulus	ASTM D790	1820	MPa
IMPACT			
Notched Izod @ 23 °C	ASTM D256	510	J/m
Notched Izod @ -23 °C	ASTM D256	90	J/m
PHYSICAL			
Specific Gravity	ASTM D792	1.04	g/cm³
Melt Flow Index	ASTM D1238	6.0	g/10 min
Mould Shrinkage	ASTM D955	0.4 - 0.7	%
Water Absorption	ASTM D570	On request	
HARDNESS			
Rockwell Hardness	ASTM D785	99	R-scale

PROPERTY	TEST METHOD	VALUE	UNIT
THERMAL			
HDT @ 1.8 MPa	ASTM D648	91	°C
Vicat Softening Point	ASTM D1525	On request	
HDT @ 0.45 MPa	ASTM D648	On request	
FLAMMABILITY			
UL 94 @ 1.6 mm	UL 94	HB	
Oxygen Index (LOI)	ASTM D2863	On request	
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

Compounded with 5 % rubber/elastomer impact modifier for moderately higher notched Izod toughness vs general-purpose ABS — typically +20 % Izod uplift at 23 °C and retained toughness down to -23 °C. Trade-offs vs GP grade: ~6 % lower tensile/flexural strength, ~5 % lower stiffness, ~3 °C lower HDT, modestly reduced flow. Recommended for drop-prone or cold-environment parts. Tests on injection-moulded specimens at 23 °C, 50 % RH per ASTM standards. Resin: BEPL impact-modified family. Values typical.

PERFORMANCE PROFILE

510

J/m @ 23°C

Notched Izod — impact toughness

90

J/m @ -23°C

Cold-temp impact retained

91

°C HDT

Heat deflection @ 1.8 MPa

HB

UL 94

Standard burn rating @ 1.6 mm

Impact-modified ABS — +20 % Izod and retained cold-temp toughness vs GP grade.

APPLICATIONS

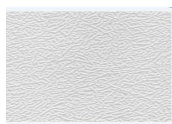
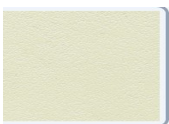
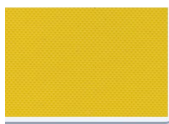
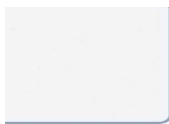
Where ABS Impact Modified gets specified — impact-toughened ABS sheet for drop-prone, cold-environment, and heavy-duty thermoforming applications.

EQUIPMENT Heavy-Duty Housings	LUGGAGE Drop-Tested Shells	AUTOMOTIVE Impact-Prone Parts	INDUSTRIAL Tool & Equipment Cases
Heavy-Duty Equipment Medical bath equipment, patient-care covers, hospital housings. Withstands drops and bumps without cracking.	Luggage & Cases Suitcase shells, tool cases, equipment cases, instrument boxes. Drop-test certified — impact-modified toughness.	Automotive Interior Door panels, dashboard trim, console parts requiring high impact resistance and cold-weather toughness.	Industrial & Cold Outdoor equipment, refrigerator parts, freezer-zone housings. Retained toughness at low temperatures down to -23 °C.

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.
• Impact Modifier Rubber/elastomer phase added to ABS. Boosts notched Izod, lowers stiffness and HDT.	• 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.	• Cold Impact Notched Izod @ -23 °C. Shows low-temp toughness — drop-test reliability in cold.

STELLAR-EX

Sheet Extrusion Excellence

INDU THERMOFORMERS PVT. LTD. / FORMPACK

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 DOC: TDS-FORMIMABS-2026-01 · Rev 01 · Issue date: May 2026 · Page 2 of 2 · Stellar-Ex™ — a brand of Indu Thermoformers
 Values are typical and intended as a guide only. Validate for application. Resin: BEPL impact-modified ABS grade family and other globally certified suppliers.

ISO 9001 : 2015

Quality Management Certified

GSTIN 27AADCM9861D1ZA

Established 1985