

Universal Polythex Kunststoffe GmbH Friedrich-Ebert-Straße 15 52531 Übach-Palenberg

TECHNICAL DATA SHEET

HIPS (PS) Virgin

DESCRIPTION

HIPS is a general-purpose opaque polystyrene material which has high impact strength and a good balance of stiffness and toughness. Due to good impact strength it is used as an excellent all-purpose material. Good thermoforming is one of the key features.

The HIPS (PS) Virgin grade is our standard opaque grade for general-purpose application.

KEY FEATURES

- Good impact resistance
- Gloss and matt finishes available
- Suitable for routing, sawing, punching, drilling, guillotining
- Good melt strength over a large temperature range
- Flammability Rating UL 94 HB > 1,6 mm⁴

APPLICATIONS

- Point of Sale
- Construction
- Trays, Cups,
- Food packaging and disposables
- Containers

PRODUCT AVAILABILITY:

Colour:	Standard Colours, metallic, customer match
Surface:	natural smooth and several embossing's
Thickness:	0,5 – 10 mm ¹
Width:	300 – 2500 mm ¹
Rolls:	available from 0,4 – 3,0 mm

¹ The dimension of the sheet is depending on embossing, colour, thickness, size of order – please ask our sales team

² The density is only a guide and depends on pigments and additives used

³ All values measured at the virgin raw material - without any pigments and additives and extrusion

⁴ Flammability is tested for Virgin HIPS raw material. This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.

TECHNICAL DATA SHEET - additional information

HIPS (PS) Virgin

	Test method	Unit	Values
Technical Properties			
Density ²	ISO 1183	g/cm ³	1,06
Charpy Notched Impact Strength, 23° C ³	ISO 179/1eA	kJ/m ²	12
Tensile Stress Yield ³	ISO 527-2/5	MPa	19,5
Tensile Stress Yield ³	ISO 527-2	MPa	19
Tensile Stress Break ³	ISO 527-2/5	MPa	22
Tensile Modulus of elasticity ³	ISO 527/ 1mm/min	MPa	1750
Flexural Modulus ³	ISO 178	MPa	1950
Flexural Stress ³	ISO 178	MPa	38,0
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h) ³	ISO 306	°C	85
Heat Deflection Temperature Under Load 0,45 MPa ³	ISO 75-2	°C	79

UV Resistance

Natural HIPS when exposed to direct UV may discolor and become brittle in a matter of months. Black pigmented sheet will improve UV resistance. An addition of a UV stabilizer can further improve its longevity. For higher UV protection we recommend our ABS/PMMA 3 layer sheet.

Chemical Resistance

The chemical resistance is depends on different factors therefore we advise you to first test the material. If you have questions – ask our sales team.

If you have any further questions, please do not hesitate to contact us.

With best regards

Universal Polythex Kunststoffe GmbH

Disclaimer:

The data, information and suggestions are provided for guidance purposes only. Universal Polythex Kunststoffe GmbH accepts no responsibility for the results obtained there from, as neither for their utilization in infringement of possible patent rights. However the Company will provide the guaranteed values for each product on demand. The information is believed to be good and reliable; however, we do not give any warranties.

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