

HIPS TECHNICAL DATA

Typical Properties for uncolored product	Test method		Unit	Value	
	ISO	ASTM		ISO	ASTM
Mechanical properties					
Tensile stress at yield / at break	527	D 638	MPa	27	26
Strain at yield	527	D 638	%	1.5	
Strain at break	527	D 638	%	30	50
Young's modulus	527	D 638	MPa	1850	1900
Flexural strength	178	D 790-1	MPa	40	37
Flexural modulus	178	D 790-1	MPa	1950	2000
Shear modulus	6721-2		MPa		
Charpy impact strength 23°C / -30°C	179/1eU		KJ/m ²	NB/130	
Charpy notched impact strength 23°C / -30°C	179/1eA		KJ/m ²	15	
Izod notched impact strength 23°C	180/1A	D 256-A	Kg cm/cm		11
Izod notched impact strength -30°C	180/1A	D 256-A	Kg cm/cm		
Ball indentation hardness H132/30,H 358/30	2039-1		Mpa	85	
Rockwell hardness, 0 Scale	2039-2		-		
Thermal properties					
Vicat softening temperature VST/B/50	306		°C	90	
Vicat softening temperature VST/A/50	306	D1525	°C	98	98
Temp. of deflection under load 1.8 MPa/HDT A	75		°C	80	80
DTUL 0.45 MPa/HDT B	75		°C	89	
Processing					
Melt volume rate MVR 200/5	1133		ml/10 min	5.5	
Melt temperature range			°C	180-260	
Dielectric properties					
Dielectric constant at 100 Hz – 1MHz	IEC 250			2.50	
Volume resistivity	IEC 93		Ω cm	>10E ¹⁶	
Surface resistivity	IEC 93		Ω	>10E ¹³	
Dielectric strength	IEC 243/1		KV/mm	155	
Optical properties					
Specular gloss (smooth surface; DIN 67530)			%	35	
UV color fastness (D E) acc. To IBM 7.17	-	-	-		
Flammability					
UL 94 (1.6 mm)			Class	94HB	
UL 94 (3.2 mm)			Class	94HB	
IEC 65 (2.4 mm)	IEC 65		+ / -	+	
IEC 695-2-1 (1.0 mm)	IEC 695-2-1		°C		
Miscellaneous properties					
Density	1183		G/cm ³	1.05	
Water absorption (Method A)	62		%	< 0.1	
Moisture absorption (23°C/50% r.h.)	-	-	%	< 0.1	

NB : no break

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