

INEOS Styrolution® 1441

Features : Crystalline、High flow、Good processability

Application: Cutlery、Housewares application、Injection molding applications

Physical property		Standard	Value	Unit
Density		ISO 1183	1.04	g/cm ³
Shrinkage		ISO 294	0.4~0.7	%
Water Absorption	23°C Saturation	ISO 62	0.04	%
Melt Index	200°C 5kg	ISO 1133	8	g/10min
Melt Index	200°C 5kg	ISO 1133	7.7	cm ³ /10min
Bulk Density	With external lubricant	INTERNAL METHOD	0.6	g/cm ³
Hardness		Standard	Value	Unit
Rockwell Hardness	L(Scale)	INTERNAL METHOD	70	
Mechanical behavior		Standard	Value	Unit
Tensile Modulus		ISO 527	2600	MPa
Tensile Strength	Break 23°C	ISO 527	40	MPa
Elongation	Flow Break	ISO 527	2	%
Flexural Strength	23°C	ISO 178	65	MPa
Flexural Modulus	23°C	ISO 178	2850	MPa
Izod Un-notch Impact	23°C	ISO 180	7	kJ/m ²
Optical performance		Standard	Value	Unit
Transmittance	550nm	ASTM D1003	89.4	%
Haze		ASTM D1003	0.5	%
Thermal		Standard	Value	Unit
Vicat Softening Temperature	50°C/hr 10N	ISO 306	95	°C
Vicat Softening Temperature	50°C/hr 50N	ISO 306	90	°C
CLE		ISO 11359	8.9E-05	cm/cm/°C
Service Temperature	Maximum	INTERNAL METHOD	240	°C
Electrical properties		Standard	Value	Unit
Surface Resistivity		IEC 62631-3-1	1E+13	Ω
Dielectric Strength	1.5mm Short Time	IEC 60243	150	KV/mm
Flammability		Standard	Value	Unit
Flame Rating	1.5mm	UL94	HB	
Injection molding			Value	Unit
Dry Temperature			70	°C
Dry Time			2	hr
Shrinkage1			0.4~0.7	%