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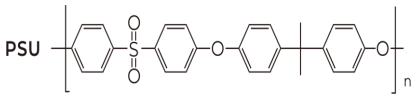
Polysulfone (PSU)



Technical Data Sheet

Polysulfone is a thermoplastic, amorphous high performance polymer. Due to the amorphous molecular structure, polysulphones are translucent and have a light brownish or yellowish colour. The high temperature material PSU offers high mechanical strength and stiffness.
PSU material can be used permanently under high operating temperatures and offers other outstanding properties, including impressively high creep resistance over a wide temperature range. PSU polymer is rounded out by its excellent dimensional stability, very good hydrolysis resistance and good chemical compatibility.

		Typical Value			
Test item	**unit**	**PSU H600**	**PSU H300**	**PSU H200**	**Test Standard**
MI (343℃ /2.16kg)	g/10min	4	8	12	GB/T 3682.1
Molecule weight	g/mol	65000	55000	46000	GB/T 21863-2
MW distribution	/	＜3.5			GB/T 21863-2
Cyclic dimer content	wt%	＜1.2			GB/T 27843
Transmittance	%	84	85	85	GB/T 2410
Haze	%	＜2	＜1.5	＜1.5	GB/T 2410
Ash specification	wt%	＜0.03	＜0.03	＜0.03	GB/T 9345.1
HDT（1.80MPa）	℃	174	174	174	GB/T 1634.2
Tg	℃	184	187	187	GB/T 19466
Tensile modulus	Mpa	2480	2480	2480	GB/T 1040.1
Tensile Strength	Mpa	72	72	72	GB/T 1040.1
Flexural Strength	Mpa	110	110	110	GB/T 9341
Flexural Modulus	Mpa	2690	2690	2690	GB/T 9341
Izod Notched Impact Strength	KJ/m²	6	5.5	5.5	GB/T 1043

Application

PSU H600 is particularly suitable for the production of hollow fiber membranes and flat membranes in solvent-based processes. With a low content of cyclic dimers, it improves the solution stability of the spinning solution and reduces reduces equipment fouling. It has many properties required by the membrane industry, such as excellent mechanical properties, stability under the condition of pH = 2 to 13, and excellent corrosion resistance. It is widely used in various membrane filtration products, including applications in kidney dialysis, water treatment, biological treatment, food and beverage processing, and industrial gas separation.

PSU H300 is a general-purpose injection molding grade of PSU specification, featuring particularly excellent properties such as high toughness, high strength, hydrolysis resistance, oxidation resistance, and steam sterilization resistance. It is suitable for applications in automotive electronics, medical devices, chemical pipelines, lab animal cages, and other fields.

PSU H200 is a high-flow injection molding grade of PSU specification, possessing particularly excellent properties such as high toughness, high fluidity, hydrolysis resistance, moisture and heat resistance, and chemical resistance. It is suitable for injection molding of thin-walled parts or parts with long flow lengths.