내열구조용 플라스틱 특성 및 제조사

■ Characteristics of Crystalline Heat Resistant Engineering Plastics

Resin	Example	Tg (℃)	Tm (℃)	Heat resistance DTUL (℃) (1.82 Mpa)		Moldability	
						Cylinder temp. (℃)	Mold temp. (℃)
				Neat	GF30%		
PA 46	Unitika Nylon46	78	290	220	285	280~300	100~140
Modified PA 6T	Arlen (Mitsui Petrochemical)	125	320	130	295	330	150
PA MXD6	Reny (Mitsubishi Gas Chemical)	75	243	93	232	265~285	130
Polyphthalamide	Amodel (Amoco Performance Products)	127	310	120	285	320~350	>135
Polycyclohexylene Terephthalate	Valox (Nippon GE Plastics)		286		260	280~310	~135
Polyphenylenesulfide	Torelina (Toray)	88	285	–	>260	300~330	130~160
Polythioethersulfone	Amorvon (Dai-nippon Ink Chemical)				220	300~340	120~170
Thermoplastic polyimide	Aurum (Mitsui Toatsu Chemical)	250	388	238	248	390~420	180~210
Polyetheretherketone	Victrex (Sumitomo Chemical)	143	334	152	300	350~400	160~200
Polyethernitrile	Idemitsu PEN	145	340	160	330	340~350	200~230

■ Characteristics of Amorphous Heat Resistant Engineering Plastics

Resin	Example	Tg (℃)	Tm (℃)	Heat resistance DTUL (℃) (1.82 Mpa)		Moldability	
						Cylinder temp. (℃)	Mold temp. (℃)
				Neat	GF30%		
Polyarylate	U-Polymer(Unitika)	193	–	175	–	350~360	130
Polysulfone	Udel(Amoco)	190	–	174	181	330~390	100~165
Polyethersulfone	Sumikaexcel (Sumitomo Chemical)	225	–	203	216	330~380	120~160
Polyetherimide	Ultem(Nippon GE Plastics)	217	–	200	210	340~425	60~175
Polyamideimide	Torlon(Amoco)	280	–	278	282	345	200~230

■ Manufacturers of Engineering Plastics in Japan

	Polyamide	Polycarbonate	Polyacetal	Reinforced Polyethyleneterephthalate	Polybutyleneterephthalate	Polyphenylenether	Polyphenylenesulfide	Liquid Crystal Polymer	Polyarylate	Polysulfone	Polyethersulfone	Polyetheretherketone	Polyetherimide	Polyimide	Thermoplastic Polyimide	Polyamideimide	Wholly Aromatic Polyamide	Partially Aromatic Polyamide	Polyamide 46	Polycyclohexyldimethyleneterephthalate	Polyethernitrile	Polythioethersulfone
Kuraray				○	○																	
Kureha Chemical							○															
Mitsubishi Engineering Plastics	○	○	○	○	○	○		○														
Mutsubishi Gas Chemical								○														
Mutsubishi Rayon			○	○	○																	
Mitsui Petrochemical																		○				
Mutsui Toatsu Chemical											○	○			○						○	
Nippon GE Plastics		○				○	○						○									
Nippon Petrochemical								○														
Polyplastics			○		○		○	○														
Showa Denko	○																					
Sumitomo Bakelite							○															
Sumitomo Chemical								○			○	○										
Sumitomo Dow		○																				
Teijin				○	○		○										○		○			
Teijin Amoco Engineering Plastics										○	○					○		○				
Teijin Chemical		○																				
Tonen Chemical							○															
Toplane							○															
Toray	○				○		○	○						○		○	○			○		
Toray Monofilament							○															
Toso Susteel							○															
Toyobo	○			○			○															
Ube Ind.	○				○		○															
Ueno Sciyaku								○						○								
Unitika	○			○				○	○								○		○			

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