Properties of DELPET™ Special grades for light guiding plates

AsahiKASEI
ASAHI KASEI CORPORATION

Property	Method	Units	70FR	70NH	80NH
1. Rheological Properties					
Melt mass-flow rate (230℃、3.8kg)	1133 cond 13	g/10min	21.0	10.5	5.5
Spiral flow length Thickness:2mm Cylinder Temp:250℃ Mold Temp:60℃ Pressure:75MPa	ASAHIKASEI method	cm	44	40	34
2. Mechanical Properties					
Tensile modulus	527-2/1A/1	MPa	3200	3300	3300
Tensile strength at break	527-2/1A/5	MPa	54	67	75
Tensile strain at break	527-2/1A/5	%	4	5	5
Charpy impact strength (Unnotched)	179/1eU	KJ/m^2	17	19	20
Charpy impact strength (Notched)	179/1eA	KJ/m^2	1.2	1.2	1.3
3. Thermal properties					
Temperature of deflection under load	75-1 75-2	℃	94	97	100
VICAT softening temperature	306 B 50	℃	102	105	109
4. Physical properties					
Water absorption at 23℃	62 method 1	%	0.3	0.3	0.3
Density	1183	g/cm3	1.19	1.19	1.19
5. Specific properties (not in ISO 10350)					
Refractive index	489	—	1.49	1.49	1.49
Total luminous transmittance	13468-1	%	92	92	92
Flexural modulus	178	MPa	3200	3200	3300
Flexural strength	178	MPa	86	120	120
Rockwell hardness	2039-2	M scale	95	95	98
		R scale			
Mold shrinkage	ASAHIKASEI method	cm/cm	0.002～0.006	0.002～0.006	0.002～0.006

NOTE: The values in the above Table are representative values obtained using the noted test methods.
Please use these values as a reference when selecting the most suitable grade for each respective use.
In addition, these values may change due to the improvement of properties. □