

DENKA GR-1000

ABS

Denka Company Limited

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt flow index, MFI	18	g/10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-
Molding shrinkage, parallel	0.5	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2750	MPa	ISO 527
Yield stress	54	MPa	ISO 527
Stress at break	37	MPa	ISO 527
Flexural modulus, 23°C	2650	MPa	ISO 178
Flexural strength	85	MPa	ISO 178
Charpy notched impact strength, +23°C	12	kJ/m ²	ISO 179/1eA
Rockwell hardness	R 114	-	ISO 2039-2
ASTM Data			
Flexural Modulus	2650	MPa	ASTM D 790
Flexural Strength	82	MPa	ASTM D 790
Rockwell Hardness	R 120	-	ASTM D 785
Izod Impact notched, 1/8 in	108	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	81	°C	ISO 75-1/-2
Vicat softening temperature, B	104	°C	ISO 306
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Yellow Card available	yes	-	-
ASTM Data			
DTUL @ 264 psi	89	°C	ASTM D 648
Vicat Temperature	103	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Density	1050	kg/m ³	ISO 1183
Density	1050	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 85	°C	-
Pre-drying - Time	2 - 3	h	-
Mold temperature	40 - 60	°C	-
Zone 1	180 - 200	°C	-
Zone 2	190 - 220	°C	-
Zone 3	200 - 240	°C	-
Nozzle temperature	200 - 235	°C	-
Screw speed	80 - 120	rpm	-
Back pressure	0.5 - 1	MPa	-

Characteristics**Processing**

Injection Molding

Regional Availability

North America, Europe, Asia Pacific