

Properties

500R

ABS resin

Properties	Test methods	Test conditions	Units	
Melt mass-flow rate	ISO 1133	220 deg C/10kg	g/10min	19
Mold shrinkage	Daicel method	-	%	0.4-0.6
Tensile strength	ISO 527	-	MPa	48
Flexural strength	ISO 178	-	MPa	75
Flexural modulus	ISO 178	-	MPa	2500
Notched Charpy impact strength	ISO 179/1eA	23 deg C	kJ/m ²	20
Notched Charpy impact strength	ISO 179/1eA	-30 deg C	kJ/m ²	10
Notched Izod impact strength	ASTM D256	23 deg C/6.4mm	J/m	200
Notched Izod impact strength	ASTM D256	-30 deg C/6.4mm	J/m	100
Rockwell hardness	ISO 2039	-	-	R110
Deflection temperature under load	ISO 75	1.80MPa	deg C	78
Deflection temperature under load	ASTM D648	1.82MPa/12.7mm	deg C	89
Vicat softening temperature	ISO 306/B50	50N X 50deg C/h	deg C	95
Coefficient of linear thermal expansion	ISO 11359	MD	X1E-5/deg C	8
Coefficient of linear thermal expansion	ISO 11359	TD	X1E-5/deg C	-
Flammability	UL94	-	-	HB
Hot wire ignition	UL746A	1.5mm	sec(PLC)	10.2(4)
High ampere arc ignition	UL746A	1.5mm	arcs(PLC)	150(0)
Water absorption	ISO 62	-	%	0.3
Density	ISO 1183	-	g/cm ³	1.05

Note

- Test methods such as ISO standards are fully or almost compliant with the standards.
- Values are typical, not quality assured.
- UL recognition File No. is E47773.
- The colorant formulations are restricted for each UL certified color. Please contact us for more information.

Typical settings for processing

Preliminary drying	Barrel temperature(deg C)				Screw rotation (rpm)	Back pressure (MPa)	Mold temperature (deg C)
	Nozzle	Front	Middle	Back			
3-5hrs 80-85deg C	210-230	210-230	190-210	170-190	70-90	10-20	40-60