

## Properties

### 510, 510SF

ABS resin

Properties	Test methods	Test conditions	Units	
Melt mass-flow rate	ISO 1133	220 deg C/10kg	g/10min	21
Mold shrinkage	Daicel method	-	%	0.4-0.6
Tensile strength	ISO 527	-	MPa	51
Flexural strength	ISO 178	-	MPa	80
Flexural modulus	ISO 178	-	MPa	2700
Notched Charpy impact strength	ISO 179/1eA	23 deg C	kJ/m2	10
Notched Charpy impact strength	ISO 179/1eA	-30 deg C	kJ/m2	6
Notched Izod impact strength	ASTM D256	23 deg C/6.4mm	J/m	100
Notched Izod impact strength	ASTM D256	-30 deg C/6.4mm	J/m	60
Rockwell hardness	ISO 2039	-	-	R110
Deflection temperature under load	ISO 75	1.80MPa	deg C	80
Deflection temperature under load	ASTM D648	1.82MPa/12.7mm	deg C	91
Vicat softening temperature	ISO 306/B50	50N X 50deg C/h	deg C	98
Ball pressure temperature	-	-	deg C	90
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	-
Water absorption	ISO 62	-	%	0.3
Density	ISO 1183	-	g/cm3	1.06

Note

- Test methods such as ISO standards are fully or almost compliant with the standards.
- Values are typical, not quality assured.

### 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