

# R840C

## Description

Chemical Pre-Consumer Recycled PMMA

It contains a minimum of 90% recycled MMA monomer content

Appropriate for injection molding

Excellent melt flow with high light transmission

Good mechanical strength, surface hardness, weather resistance

Free colorability due to crystal clarity

## Application

Windows for electric home appliances, Exterior/interior lighting lenses, Car tail lamps

Side mirror repeat lamp, Emblem, Car instrument clusters

## Table

PROPERTY	CONDITION	UNIT	METHOD	VALUE
<b>OPTICAL PROPERTIES</b>				
Refractive Index	nd	-	ISO 489	1.49
Light Transmittance	3mm	%	ISO 13468-1	92
Haze	3mm	%	ISO 14782	<0.5
<b>THERMAL PROPERTIES</b>				
Melt Flow Index	230°C/3.8kg	g/10min	ISO 1133	5.2
VICAT Softening Point	B/50	°C	ISO 306	102
Heat Deflection Temperature <sub>annealed</sub>	1.8MPa	°C	ISO 75	95
Coefficient of Linear Expansion	-	1/°C	ASTM D696	6X10 <sup>-5</sup>
<b>MECHANICAL PROPERTIES</b>				
Charpy Impact Strength	notched	kJ/m <sup>2</sup>	ISO 179	1.5
Rockwell Hardness	M scale	-	ISO 2093-2	95
Tensile Strength at Break	5mm/min	MPa	ISO 527	65
Tensile Strain at Break	5mm/min	%	ISO 527	5
Tensile Modulus	1mm/min	GPa	ISO 527	2.9
Flexural Strength	2mm/min	MPa	ISO 178	103
Flexural Modulus	2mm/min	GPa	ISO 178	2.9
<b>GENERAL PROPERTIES</b>				
Density	-	g/cm <sup>3</sup>	ISO 1183	1.19
Mold Shrinkage	-	%	ASTM D955	0.2-0.6
Water Absorption	24hr	%	ASTM 570	0.3
Flammability UL94	1.5mm	Class	IEC 60695-11-10	HB
<b>RECOMMENDED PROCESSING CONDITIONS</b>				
Predrying Temperature	-	°C	-	80-90
Predrying Time in Desiccant-Type Drier	-	hr	-	4-6
Melt Temperature	-	°C	-	220-250
Mold Temperature	-	°C	-	50-70

REMARKS : The listed values should be used for reference purpose only.