

# IG840 / IG840F (General Purpose Grade)



Properties	Test Method	Condition	Unit	IG840	IG840F
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## Physical Properties

Specific Gravity	ASTM D792	-	-	1.18	1.18
Total Light Transmittance	ASTM D1003	3.2mm	%	93	93
Refractive Index	ASTM D542	nd	-	1.49	1.49
HAZE	ASTM D1003	3.2mm	%	0.5	0.5
Water Absorption	ASTM D570	24h	%	0.3	0.3

## Thermal Properties

Flow Index	ASTM D1238	3.8Kg,230°C	g/10min	5.8	6.9
VICAT Softening Point	ASTM D1525	1 kg	°F	228	231
			°C	109	110.5
Coefficient of Linear Expansion	ASTM D696	-	mm/mm/°C	6 × 10 <sup>-5</sup>	6 × 10 <sup>-5</sup>
Molding Shrinkage	ASTM D955	-	%	0.4 ~ 0.8	0.4 ~ 0.8
HDT	ASTM D648	Unannealed	°F	194	197
			°C	90	91.5
HDT	ASTM D648	18.6kg Annealed	°F	210	213
			°C	99	100.5

## Mechanical Properties

Izod Impact Strength	ASTM D256	Notched	J/m	14.7	14.7
			KJ/m <sup>2</sup>	1.5	1.5
			ft.lb/cm	0.28	0.28
			kg cm/cm	1.5	1.5
Rockwell Hardness	ASTM D785	M Scale	-	96	96
Tensile Strength	ASTM D638	-	psi	10,511	10,085
		-	M Pa	73	70
		-	kg/cm <sup>2</sup>	740	710
Elongation	ASTM D638	-	%	11	10
Flexural Strength	ASTM D790	-	psi	19,886	18,750
		-	M Pa	137	129
		-	kg/cm <sup>2</sup>	1,400	1,320
Flexural Modulus	ASTM D790	-	psi	482,955	474,432
		-	M Pa	3,333	3,275
		-	kg/cm <sup>2</sup>	34,000	33,400

## Electrical Properties

Volume Resistance	ASTM D257	-	Ω·cm	> 10	> 10
Dielectric Strength	ASTM D149	4KV/S	kV/mm	20	20
Dielectric Constant	ASTM D150	60Hz	-	4	4
Power Factor	ASTM D150	60Hz	-	0.05	0.05

## Flame Retardant Properties

Flame Retardancy	UL 94	-	class ( thickness:mm )	HB	HB
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REMARKS : The listed values should be used for referential purposed only