



Product Data

GRADE: PH (HEADLAMP GRADE)

GENERAL DESCRIPTION

PH (Headlamp Grade) is a low profile Polyester Moulding Compound which has been designed for parts where heat resistance, surface appearance, gloss and surface profile are paramount importance.

SPECIAL PROPERTIES

Type PH is particularly suited to applications such as parabolic reflectors for high performance automotive headlamps. The material has been specially formulated to be compatible with the vacuum metalisation process widely used in the manufacture of reflectors. Low volatiles emission on heating minimises 'fogging' of the reflector surface during service.

TYPICAL PROPERTIES

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>UNIT</u> <u>S</u>	<u>VALUE</u>
<u>Physical Properties:</u>			
Density	BS2782 Method 620A	g/cm ³	1.9
Mould Shrinkage	BS2782 Method 640A ISO 2577-75	%	0.0 ± .02
Water Absorption	BS2782 Method 430A ISO 62-80	mg	36
<u>Thermal Properties:</u>			
After Shrinkage (48 hr @ 100°C)	BS2782 Method 640A ISO 2577	%	Zero
Temperature Deflection Under Load (1.8 MPa)	BS2782 Method 121A ISO 75	°C	> 200
Coefficient of Linear Thermal Expansion	ASTM E228-85	K ⁻¹	10 x 10 ⁻⁶
<u>Flame Retardant:</u>			
Oxygen Index	BS2782 Method 141 ISO 4589	%	24.0
<u>Mechanical Properties:</u>			
Flexural Strength	BS2782 Method 335A ISO 178	MPa	85
Flexural Modulus	BS2782 Method 335A ISO 178	GPa	8.5
Charpy Impact Strength (Notched)	BS2782 Method 359 ISO 179	kJ/m ²	20.0

ISSUE 1 – IDI – 1 GWB/July 2002

Before use consult the appropriate Industrial Dielectrics (UK) Ltd. Health and Safety Data.

The values quoted in the properties table have been obtained by standard test methods, using compression moulded specimens.

They provide useful comparisons between types but do not necessarily indicate the performance of commercial parts, which may differ due to a number of factors, including colour, component design, mould design, and method of manufacture and moulding.

Information and recommendations contained in this publication are given in good faith without warranty or guarantee. No liability can be accepted for any claims, losses or demands arising out of the contents of this publication. This statement does not affect any statutory rights, which cannot be excluded by agreement.

IDI Composites, Unit One Oldbury park popes lane, Oldbury West Midlands England B69 4RG
Telephone [+44] (0) 121-543 5361 Facsimile [+44] (0) 121-543 5377