B PLASTICS AUSTRALIA
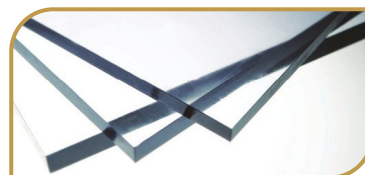ENGINEERING AND PLASTICS SPECIALIST

SAFEGUARD UV2™

Raw Material   Polycarbonate (PC)

General Properties	Test Method	Unit	Value
Density	DIN EN ISO 1183	g/cm^3	1.2
Water Absorption in air 50% r.h.	DIN 53715	%	0.15
Absorption 23-C In Water-Saturation	DIN 53495	%	0.36
Food Compliance	-	FDA/BfR	YES
UV Stability	-	-	YES
Mechanical Properties			
Tensile Stress At Yield At Break	DIN 53455	N/mm^2	60
Elongation At Break	DIN 53453	%	80
Tensile Modulus Of Elasticity	DIN 53456	N/mm^2	2200
Compression Test 1% strain 1000h	DIN 53375	-	-
Notched Impact Strength (Charpy)	DIN 53455	KJ/mm^2	40
Ball Indentation Hardness	DIN 53453	N/mm^2	110
Rockwell Hardness (Dry)	DIN 53456	Scale D	-
Coefficient Of Friction To Steel	DIN 53375	u	0.55
Thermal Properties			
Melting Temperature	ISO 3146	°C	-
Thermal Conductivity	DIN 52612	W/km	0.2
Deformation at temperature HDT	DIN 53461	°C	135
Coefficient Of Linear Thermal Expansion	DIN 53752	$10^{-6} K^{-1}$	65
Service Temperature, Long Term	Average	°C	115
Service Temperature, Short Term (MAX)	Average	°C	145
Minimum Operating Temperature	Average	°C	-60
Flammability	UL 94 (3-6mm thickness)	-	HB
Electrical Properties			
Dielectric Constant at 1 MHz	DIN 53483	-	2.9
Dielectric Dissipation Factor (1 MHz)	DIN 53483	-	0.0011
Volume Resistivity	DIN 53482	cm	10^{15}
Dielectric Strength	DIN 53481	KV/mm	30

Applications:
- Semiconductor Components
- Insulators
- Machine Guards
- Prototypes

Characteristics:
- High Dimensional Stability
- Extreme Impact Strength
- UV Stability
- Good Chemical Resistance
- Good Electrical Properties

ROD

PLATE

TUBE