

**TOPAS® Elastomer E-140**

This grade is a COC-Elastomer developmental product; property data listed below are preliminary guide values.

Cyclic Olefin Copolymer (COC)

Property	Value	Unit	Test Standard
<b>Physical Properties</b>			
Density	940	kg/m <sup>3</sup>	ISO 1183
Melt volume rate (MVR)	3.0	cm <sup>3</sup> /10min	ISO 1133
MVR test temperature	190	°C	ISO 1133
MVR test load	2.16	kg	ISO 1133
Melt volume rate (MVR)	12.0	cm <sup>3</sup> /10min	ISO 1133
MVR test temperature	260	°C	ISO 1133
MVR test load	2.16	kg	ISO 1133
Hardness, Shore A	89	-	ISO 868
WVTR - @23°C / 85RH	1.0	g·100µm/(m <sup>2</sup> ·day)	ISO 15106-3
WVTR - @38°C / 90RH	4.6	g·100µm/(m <sup>2</sup> ·day)	ISO 15106-3
<b>Mechanical Properties</b>			
Tensile stress at break (50mm/min)	> 19	MPa	ISO 527-T2/1A
Tensile modulus (1mm/min)	44	MPa	ISO 527-T2/1A
Tensile strain at break (50mm/min)	> 450	%	ISO 527-T2/1A
Tear strength	47	kN/m	ISO 34-1
Compression set - @24h / 23°C	35	%	ISO 815
Compression set - @72h / 23°C	32	%	ISO 815
Compression set - @24h / 60°C	90	%	ISO 815
<b>Thermal Properties</b>			
Glass transition temperature (10°C/min)	6	°C	internal method
Tm - Melt temperature	84	°C	internal method
Vicat softening temperature, VST/A50	64	°C	ISO 306

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