Polycarbonate

# SABIC Innovative Plastics Europe



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# **Technical Data**

## Product Description

LEXAN 503R is a medium viscosity, 10% glass reinforced, UV-stabilized, flame retardant grade, especially designed for applications requiring high rigidity together with high heat resistance and excellent impact performance.

General	
Material Status	Commercial: Active
Literature <sup>1</sup>	Technical Datasheet
UL Yellow Card <sup>2</sup>	• E45329-100369982
Search for UL Yellow Card	<ul> <li>SABIC Innovative Plastics Europe</li> <li>LEXAN™</li> </ul>
Availability	• Europe
Filler / Reinforcement	<ul> <li>Glass Fiber Reinforcement, 10% Filler by Weight</li> </ul>
Additive	Flame Retardant     UV Stabilizer
Features	<ul> <li>Flame Retardant</li> <li>Good Impact Resistance</li> <li>High Heat Resistance</li> <li>High Rigidity</li> <li>Medium Viscosity</li> </ul>
RoHS Compliance	RoHS Compliant
Processing Method	Injection Molding

Density         1.25 g/cm³         ISO 1183           Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)         8.00 cm³/10min         ISO 1133           Molding Shrinkage - Flow 4         0.20 to 0.60 %         Internal Method           Water Absorption         ISO 62         ISO 62           Saturation, 23°C         0.31 %         ISO 62           Mechanical         Nominal Value Unit         Test Method           Mechanical         Nominal Value Unit         Test Method           Tensile Stress         ISO 527-2/1           Tensile Stress         ISO 527-2/5           Yield         60.0 MPa           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         7.0 %           Flexural Modulus <sup>5</sup> 3400 MPa         ISO 178           Iso 178         Iso 178           Ipact         7.0 %           Impact         Nominal Value Unit	Physical	Nominal Value Unit	Test Method
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)         8.00 cm³/10min         ISO 1133           Molding Shrinkage - Flow <sup>4</sup> 0.20 to 0.60 %         Internal Method           Water Absorption         ISO 62         Saturation, 23°C         0.31 %           Equilibrium, 23°C, 50% RH         0.13 %         Mechanical         Nominal Value Unit         Test Method           Tensile Modulus         3300 MPa         ISO 527-2/1         ISO 527-2/1           Tensile Stress         ISO 527-2/1         ISO 527-2/1           Yield         60.0 MPa         So 527-2/5           Yield         60.0 MPa         ISO 527-2/5           Yield         5.0 %         Iso 178           Flexural Modulus <sup>5</sup> 95.0 MPa         ISO 178           Flexural Modulus <sup>5</sup> 95.0 MPa         ISO 178           Flexural Strength <sup>5.6</sup> 95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method         1000 Cycles, 1000 g, CS-17 Wheel         ISO 179/16A           23°C 7         9	Density	1.25 g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage - Flow 4         0.20 to 0.60 %         Internal Method           Water Absorption         ISO 62           Saturation, 23°C         0.31 %           Equilibrium, 23°C, 50% RH         0.13 %           Mechanical         Nominal Value Unit         Test Method           Tensile Modulus         3300 MPa         ISO 527-2/1           Tensile Stress         ISO 527-2/5           Yield         60.0 MPa         ISO 527-2/5           Break         45.0 MPa         ISO 527-2/5           Yield         60.0 MPa         ISO 527-2/5           Break         45.0 MPa         ISO 527-2/5           Yield         60.0 MPa         ISO 527-2/5           Yield         5.0 %         Iso 527-2/5           Yield         5.0 %         Iso 527-2/5           Flexural Strain         ISO 527-2/5           Yield         5.0 %         Iso 178           Flexural Modulus <sup>5</sup> 3400 MPa         ISO 178           Flexural Modulus <sup>5</sup> 95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg         Iso 179/1eA           23°C 7         9.0 kJ/m²         ISO 179/1eA	Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	8.00 cm³/10min	ISO 1133
Water Absorption         ISO 62           Saturation, 23°C         0.31 %           Equilibrium, 23°C, 50% RH         0.13 %           Mechanical         Nominal Value Unit         Test Method           Tensile Modulus         3300 MPa         ISO 527-2/1           Tensile Stress         ISO 527-2/5           Yield         60.0 MPa           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         7.0 %           Flexural Modulus <sup>5</sup> ISO 178           Flexural Modulus <sup>5</sup> 1SO 178           Flexural Strength <sup>5.6</sup> 95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         ISO 179/1eA           23°C 7         9.0 kJ/m²         ISO 179/1eA           23°C 1         10 kJ/m²         ISO 179/1eA           23°C No Break         ISO 179/1eA	Molding Shrinkage - Flow <sup>4</sup>	0.20 to 0.60 %	Internal Method
Saturation, 23°C         0.31 %           Equilibrium, 23°C, 50% RH         0.13 %           Mechanical         Nominal Value Unit         Test Method           Tensile Modulus         3300 MPa         ISO 527-2/1           Tensile Modulus         3000 MPa         ISO 527-2/5           Yield         60.0 MPa         Break           Break         45.0 MPa         ISO 527-2/5           Yield         60.0 MPa         So 527-2/5           Tensile Strain         ISO 527-2/5           Yield         5.0 %         So 527-2/5           Flexural Modulus <sup>5</sup> 5.0 %         So 527-2/5           Yield         5.0 %         So 527-2/5           Flexural Modulus <sup>5</sup> 5.0 %         So 527-2/5           Flexural Modulus <sup>5</sup> 3400 MPa         ISO 178           Flexural Modulus <sup>5</sup> 3400 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg         So 179/1eA           23°C 7         9.0 kJ/m²         ISO 179/1eA           23°C 7         9.0 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²	Water Absorption		ISO 62
Equilibrium, 23°C, 50% RH         0.13 %           Mechanical         Nominal Value Unit         Test Method           Tensile Modulus         3300 MPa         ISO 527-2/1           Tensile Stress         ISO 527-2/5           Yield         60.0 MPa         Break           Break         45.0 MPa         Tensile Stress           Tensile Strain         ISO 527-2/5         Stress           Yield         60.0 MPa         Stress           Break         45.0 MPa         Stress           Tensile Strain         ISO 527-2/5           Yield         5.0 %         Stress           Break         7.0 %         Stress           Flexural Modulus <sup>5</sup> 3400 MPa         ISO 178           Flexural Strength <sup>5, 6</sup> 95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           1000 Cycles, 1000 g, CS-17 Wheel         ISO 179/1eA           23°C 7         9.0 kJ/m²         ISO 179/1eA           23°C 7         9.0 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA	Saturation, 23°C	0.31 %	
Mechanical         Nominal Value Unit         Test Method           Tensile Modulus         3300 MPa         ISO 527-2/1           Tensile Stress         ISO 527-2/5           Yield         60.0 MPa           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         45.0 MPa           Flexural Modulus <sup>5</sup> S0 178           Flexural Modulus <sup>5</sup> Mominal Value Unit         S0 178           Flexural Strength <sup>5,6</sup> 9.0 NJMa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg         Iso 179/164           23°C 7         9.0 kJ/m²         ISO 179/164           -30°C 7         9.0 kJ/m²         ISO 179/164           23°C 7         ISO 179/164         ISO 179/164           23°C         No Break         ISO 179/164           -30°C 7         No Break         ISO 179/164           -30°C 7         No Break         ISO 179/164           -30°C 8         No Break	Equilibrium, 23°C, 50% RH	0.13%	
Tensile Modulus         3300 MPa         ISO 527-2/1           Tensile Stress         ISO 527-2/5           Yield         60.0 MPa           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         7.0 %           Flexural Modulus <sup>5</sup> 3400 MPa           ISO 178         ISO 178           Flexural Modulus <sup>5</sup> 95.0 MPa           Iso 178         Iso 178           Flexural Strength <sup>5.6</sup> 95.0 MPa           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         9.0 kJ/m²         ISO 179/1eA           -30°C 7         9.0 kJ/m²         ISO 179/1eA           23°C         15 kJ/m²         ISO 179/1eA           -30°C 7         ISO 179/1eA         ISO 179/1eA           23°C         No Break         ISO 179/1eA           23°C         No Break         ISO 180/1A           -30°C         No Break         ISO 180/1A <td>Mechanical</td> <td>Nominal Value Unit</td> <td>Test Method</td>	Mechanical	Nominal Value Unit	Test Method
Tensile Stress         ISO 527-2/5           Yield         60.0 MPa           Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         7.0 %           Flexural Modulus <sup>5</sup> 3400 MPa           Flexural Modulus <sup>5</sup> 3400 MPa           Iso 178         Iso 178           Flexural Strength <sup>5.6</sup> 95.0 MPa           1000 Cycles, 1000 g, CS-17 Wheel         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg         1000 Cycles, 1000 g, CS-17 Wheel           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         ISO 179/1eA           -30°C 7         9.0 kJ/m²         ISO 179/1eA           23°C         No Break         SO 179/1eU           -30°C         No Break         ISO 179/1eU           -30°C         No Break         ISO 180/1A           23°C         SO 180/1A         SO 180/1A	Tensile Modulus	3300 MPa	ISO 527-2/1
Yield       60.0 MPa         Break       45.0 MPa         Tensile Strain       ISO 527-2/5         Yield       5.0 %         Break       7.0 %         Flexural Modulus <sup>5</sup> 3400 MPa         Strength <sup>5,6</sup> 35.0 MPa         Flexural Strength <sup>5,6</sup> 95.0 MPa         Taber Abrasion Resistance       Internal Method         1000 Cycles, 1000 g, CS-17 Wheel       11.0 mg         Impact       Nominal Value Unit       Test Method         Charpy Notched Impact Strength       9.0 kJ/m²       ISO 179/1eA         23°C       9.0 kJ/m²       ISO 179/1eA         23°C       No Break       ISO 179/1eU         -30°C       8.0 kJ/m²       ISO 180/1A	Tensile Stress		ISO 527-2/5
Break         45.0 MPa           Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         7.0 %           Flexural Modulus <sup>5</sup> 3400 MPa           ISO 178         ISO 178           Flexural Modulus <sup>5</sup> 3400 MPa           Iso 178         ISO 178           Flexural Strength <sup>5.6</sup> 95.0 MPa           1000 Cycles, 1000 g, CS-17 Wheel         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         ISO 179/1eA           23°C 7         9.0 kJ/m²         ISO 179/1eA           23°C         No Break         ISO 179/1eA           -30°C 2         No Break         ISO 179/1eA           23°C 1         ISO 179/1eU         -30°C           Notched Izod Impact Strength <sup>8</sup> ISO 180/1A           -30°C 2         No Break         ISO 180/1A           -30°C 2         8.0 kJ/m²         ISO 180/1A	Yield	60.0 MPa	
Tensile Strain         ISO 527-2/5           Yield         5.0 %           Break         7.0 %           Flexural Modulus <sup>5</sup> 3400 MPa         ISO 178           Flexural Strength <sup>5.6</sup> 95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         ISO 179/1eA         23°C 7           23°C 7         9.0 kJ/m²         ISO 179/1eA           23°C         No Break         23°C           23°C 0         No Break         S0 179/1eU           -30°C 7         ISO 179/1eU         S0 179/1eA           23°C 0         No Break         S0 179/1eU           -30°C 7         ISO 179/1eU         S0 179/2C           Charpy Unnotched Impact Strength 7         ISO 179/1eU         S0 179/2C           -30°C 0         No Break         S0 180/1A           -30°C 1         ISO 180/1A         S0 180/1A	Break	45.0 MPa	
Yield         5.0 %           Break         7.0 %           Flexural Modulus <sup>5</sup> 3400 MPa         ISO 178           Flexural Strength <sup>5, 6</sup> 95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         -         -           -30°C <sup>7</sup> 9.0 kJ/m <sup>2</sup> ISO 179/1eA           23°C         10 kJ/m <sup>2</sup> ISO 179/1eA           23°C         No Break         -           23°C         No Break         -           23°C         8.0 kJ/m <sup>2</sup> ISO 180/1A	Tensile Strain		ISO 527-2/5
Break7.0 %Flexural Modulus 53400 MPaISO 178Flexural Strength 5. 695.0 MPaISO 178Taber Abrasion ResistanceInternal Method1000 Cycles, 1000 g, CS-17 Wheel11.0 mgImpactNominal Value UnitTest MethodCharpy Notched Impact Strength9.0 kJ/m²ISO 179/1eA-30°C 79.0 kJ/m²ISO 179/1eA23°C 710 kJ/m²ISO 179/1eA23°C15 kJ/m²ISO 179/1eACharpy Unnotched Impact Strength 7ISO 179/1eA-30°CNo BreakS0 179/1eU-30°CNo BreakISO 180/1A-30°C8.0 kJ/m²ISO 180/1A	Yield	5.0 %	
Flexural Modulus 5         3400 MPa         ISO 178           Flexural Strength 5.6         95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         -         -           -30°C 7         9.0 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA           -30°C 7         10 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA           -30°C 7         8.0 kJ/m²         ISO 179/1eA           -30°C 8         No Break         ISO 179/1eU           -30°C 8         No Break         ISO 180/1A           -30°C 8         8.0 kJ/m²         ISO 180/1A	Break	7.0 %	
Flexural Strength <sup>5, 6</sup> 95.0 MPa         ISO 178           Taber Abrasion Resistance         Internal Method           1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         9.0 kJ/m²         ISO 179/1eA           -30°C <sup>7</sup> 9.0 kJ/m²         ISO 179/1eA           23°C         10 kJ/m²         ISO 179/1eA           23°C         15 kJ/m²         ISO 179/1eA           -30°C         No Break         SO 179/1eU           -30°C         No Break         SO 180/1A           -30°C         8.0 kJ/m²         ISO 180/1A	Flexural Modulus <sup>5</sup>	3400 MPa	ISO 178
Taber Abrasion ResistanceInternal Method1000 Cycles, 1000 g, CS-17 Wheel11.0 mgImpactNominal Value UnitTest MethodCharpy Notched Impact Strength-30°C 7-30°C 79.0 kJ/m²23°C 710 kJ/m²23°C 710 kJ/m²23°C15 kJ/m²Charpy Unnotched Impact Strength 7ISO 179/1eA-30°CNo Break23°CNo Break23°CNo Break23°C10 kJ/m²-30°CNo Break23°C10 kJ/m²23°C10 kJ/m²	Flexural Strength <sup>5, 6</sup>	95.0 MPa	ISO 178
1000 Cycles, 1000 g, CS-17 Wheel         11.0 mg           Impact         Nominal Value Unit         Test Method           Charpy Notched Impact Strength         -30°C 7         9.0 kJ/m²         ISO 179/1eA           23°C 7         10 kJ/m²         ISO 179/1eA         23°C           23°C 7         10 kJ/m²         ISO 179/1eA           23°C         15 kJ/m²         ISO 179/1eA           23°C         15 kJ/m²         ISO 179/1eA           23°C         No Break         ISO 179/1eU           -30°C         No Break         SO 179/1eU           -30°C         No Break         ISO 180/1A           -30°C         8.0 kJ/m²         ISO 180/1A           -30°C         8.0 kJ/m²         ISO 180/1A	Taber Abrasion Resistance		Internal Method
ImpactNominal Value UnitTest MethodCharpy Notched Impact Strength9.0 kJ/m²ISO 179/1eA-30°C 79.0 kJ/m²ISO 179/1eA23°C 710 kJ/m²ISO 179/1eA23°C15 kJ/m²ISO 179/2CCharpy Unnotched Impact Strength 7ISO 179/1eU-30°CNo Break23°CNo Break23°CNo Break23°CISO 180/1A-30°C8.0 kJ/m²10 kJ/m²ISO 180/1A	1000 Cycles, 1000 g, CS-17 Wheel	11.0 mg	
Charpy Notched Impact Strength         -30°C <sup>7</sup> 9.0 kJ/m²         ISO 179/1eA           23°C <sup>7</sup> 10 kJ/m²         ISO 179/1eA           23°C         15 kJ/m²         ISO 179/1eA           23°C         15 kJ/m²         ISO 179/1eA           23°C         15 kJ/m²         ISO 179/1eA           23°C         No Break         ISO 179/1eU           -30°C         No Break         SO 179/1eU           -30°C         No Break         ISO 180/1A           -30°C         8.0 kJ/m²         ISO 180/1A	Impact	Nominal Value Unit	Test Method
-30°C 7       9.0 kJ/m²       ISO 179/1eA         23°C 7       10 kJ/m²       ISO 179/1eA         23°C       15 kJ/m²       ISO 179/2C         ISO 179/2C         Charpy Unnotched Impact Strength 7       ISO 179/1eU         -30°C       No Break       23°C         23°C       No Break       ISO 179/1eU         -30°C       No Break       ISO 180/1A         -30°C       8.0 kJ/m²       ISO 180/1A         -30°C       8.0 kJ/m²       ISO 180/1A	Charpy Notched Impact Strength		
23°C       10 kJ/m²       ISO 179/1eA         23°C       15 kJ/m²       ISO 179/2C         Charpy Unnotched Impact Strength 7       ISO 179/1eU         -30°C       No Break         23°C       No Break         23°C       So Break         23°C       No Break         23°C       No Break         23°C       ISO 180/1A         -30°C       8.0 kJ/m²         23°C       10 k.1/m²	-30°C <sup>7</sup>	9.0 kJ/m <sup>2</sup>	ISO 179/1eA
23°C         15 kJ/m²         ISO 179/2C           Charpy Unnotched Impact Strength 7         ISO 179/1eU         ISO 179/1eU           -30°C         No Break         23°C         No Break           23°C         No Break         ISO 180/1A           -30°C         8.0 kJ/m²         ISO 180/1A           -30°C         8.0 kJ/m²         10 k.1/m²	23°C <sup>7</sup>	10 kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength 7     ISO 179/1eU       -30°C     No Break       23°C     No Break       Notched Izod Impact Strength 8     ISO 180/1A       -30°C     8.0 kJ/m²       23°C     10 k.l/m²	23°C	15 kJ/m²	ISO 179/2C
-30°C No Break 23°C No Break Notched Izod Impact Strength <sup>8</sup> ISO 180/1A -30°C 8.0 kJ/m <sup>2</sup> 23°C 10 kJ/m <sup>2</sup>	Charpy Unnotched Impact Strength <sup>7</sup>		ISO 179/1eU
23°C     No Break       Notched Izod Impact Strength <sup>8</sup> ISO 180/1A       -30°C     8.0 kJ/m <sup>2</sup> 23°C     10 k.l/m <sup>2</sup>	-30°C	No Break	
Notched Izod Impact Strength 8     ISO 180/1A       -30°C     8.0 kJ/m²       23°C     10 k.l/m²	23°C	No Break	
-30°C 8.0 kJ/m <sup>2</sup>	Notched Izod Impact Strength <sup>8</sup>		ISO 180/1A
23°C 10 k.l/m <sup>2</sup>	-30°C	8.0 kJ/m <sup>2</sup>	
	23°C	10 kJ/m²	

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The information presented on this datasheet was acquired by UL IDES from the producer of the material. UL IDES makes substantial efforts to assure the accuracy of this data. However, UL IDES assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

# LEXAN™ 503R resin

Polycarbonate SABIC Innovative Plastics Europe

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Impact	Nominal Value Unit	Test Method
Unnotched Izod Impact Strength <sup>8</sup>		ISO 180/1U
-30°C	130 kJ/m²	
23°C	No Break	
Hardness	Nominal Value Unit	Test Method
Ball Indentation Hardness (H 358/30)	110 MPa	ISO 2039-1
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed, 100 mm Span <sup>9</sup>	140 °C	ISO 75-2/Be
1.8 MPa Unannealed 100 mm Span <sup>9</sup>	132 °C	ISO 75-2/Ae
1.8  MPa Appealed $10$	136°C	ISO 75-2/Ae
Vicat Softening Temperature	100 0	100 13-2/40
vical Solitening Temperature	1E0 °C	
	150 C	ISO 306/R50
	141 C	150 306/8120
 Poll Procedure Test (125°C)	Page	
CLTE Flow (22 to 90°C)	Pass 0.000040 cm/cm/°C	IEC 00095-10-2
CLIE - FIOW (23 to 60 C)		150 11359-2
	0.21 W/M/K	150 8302
RTIElec	120 °C	UL 746
RITIMp	110°C	UL 746
RIIStr	120°C	UL 746
Electrical	Nominal Value Unit	lest Method
Surface Resistivity	> 1.0E+15 ohm	IEC 60093
Volume Resistivity	> 1.0E+15 ohm·cm	IEC 60093
Electric Strength		IEC 60243-1
1.00 mm <sup>11</sup>	18 kV/mm	
3.20 mm, in Oil	16 kV/mm	
Relative Permittivity		IEC 60250
50 Hz	2.90	
60 Hz	2.90	
1 MHz	2.80	
Dissipation Factor		IEC 60250
50 Hz	0.0010	
60 Hz	0.0010	
1 MHz	0.010	
Comparative Tracking Index		IEC 60112
	175 V	
Solution B	100 V	
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
1.50 mm	V-0	
3.00 mm	5VA	
Glow Wire Flammability Index (1.00 mm)	960 °C	IEC 60695-2-12
Oxygen Index	36 %	ISO 4589-2
Injection	Nominal Value Unit	
Drying Temperature	120 °C	
Drying Time	2.0 to 4.0 hr	
Suggested Max Moisture	0.020 %	
Hopper Temperature	60.0 to 80.0 °C	
Rear Temperature	270 to 300 °C	
Middle Temperature	280 to 310 °C	
Front Temperature	290 to 320 °C	
Nozzle Temperature	280 to 310 °C	

<sup>2</sup> of 4

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# LEXAN<sup>™</sup> 503R resin Polycarbonate SABIC Innovative Plastics Europe

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Injection	Nominal Value Unit	
Processing (Melt) Temp	290 to 320 °C	
Mold Temperature	80.0 to 120 °C	

#### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> Tensile Bar

<sup>5</sup> 2.0 mm/min

<sup>6</sup> Yield

<sup>7</sup> 80\*10\*3 sp=62mm

<sup>8</sup> 80\*10\*3

<sup>9</sup> 120\*10\*4 mm

<sup>10</sup> 2 hr, 120°C

<sup>11</sup> Short-Time

# Where to Buy

#### Supplier

SABIC Innovative Plastics Europe , Netherlands Telephone: +36-1-238-5060 Web: http://www.sabic-ip.com/

### Distributor

Polymix Telephone: +33-3-8920-1380 Web: http://www.polymix.eu/ Availability: France

**RESINEX Group** 

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country. Telephone: +32-14-672511 Web: http://www.resinex.com/ Availability: Europe

Ultrapolymers

*Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.*  **Telephone:** +32-11-57-95-57 **Web:** http://www.ultrapolymers.com/ **Availability:** Belgium, Netherlands, South Africa

The information presented on this datasheet was acquired by UL IDES from the producer of the material. UL IDES makes substantial efforts to assure the accuracy of this data. However, UL IDES assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.





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