

# LEXANTM RESIN EX1632T

### **REGION AMERICAS**

### **DESCRIPTION**

LEXAN™ EX1632T resin is a 6 MFR polycarbonate, MVR of 6. UV stabilized. Release agent. UL94 HB rated. It contains branched polycarbonate resin. Designed for use in multi-wall sheet or profile extrusion applications.

## **TYPICAL PROPERTY VALUES**

Revision 20201125

MECHANICA         Tensile Stress, yid., Type 1, 50 mm/min         61         MPa         ASTAN D638           Tensile Stress, yid., Type 1, 50 mm/min         62         ASTAN D638           Tensile Strain, jobt., Type 1, 50 mm/min         88.8         \$         ASTAN D638           Tensile Strain, jobt., Type 1, 50 mm/min         20         MPa         ASTAN D638           Tensile Modulus, Jamm/min, 50 mm span         29         MPa         ASTAN D790           Recural Modulus, 1,3 mm/min, 50 mm span         39         MPa         ASTAN D790           Recural Modulus, 1,3 mm/min, 50 mm span         80         Jm         ASTAN D256           Ized dimpact, notched, 23°C         80         Jm         ASTAN D256           Ized dimpact, notched, 30°C         152         Jm         ASTAN D256           Ized dimpact, notched, 23°C         7         Ym         ASTAN D256           Ized dimpact, notched, 23°C         7         Ym         ASTAN D256           Ized dimpact, notched, 23°C         7         Xm         ASTAN D256           Ized dimpact, notched, 23°C         7         Xm         ASTAN D256           Ized Strain, Bart, 154         14         Xm         ASTAN D256           Ized Strain, 154         Xm         Xm         ASTAN D256 </th <th>PROPERTIES</th> <th>TYPICAL VALUES</th> <th>UNITS</th> <th>TEST METHODS</th>	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Ternile Stress, brk, Type I, 50 mm/min         97         MFe         ASTM D68           Tensile Strain, Juk, Type I, 50 mm/min         6.3         4         ASTM D68           Tensile Strain, Juk, Type I, 50 mm/min         98         3         ASTM D68           Tensile Modulus, 5 mm/min         210         MPa         ASTM D68           Flexural Stress, Jul, 1.3 mm/min, 50 mm span         99         MPa         ASTM D790           MPACT         V         SMTD D68         ASTM D69           Ibrough Londched, 23°C         80         J/m         ASTM D626           Ibrough Londched, 23°C         92         J/m         ASTM D626           Ibrough Londched, 23°C         80         J/m         ASTM D626           Ibrough Londched, 23°C         16         J/m         ASTM D626           Ibrough Londched, 23°C         18         J/m         ASTM D626           Ibrough Londched, 23°C         3         MD 256         ASTM D626           Ibrough Londched, 23°C         3         ASTM D626         ASTM D626           Ibrough Londched, 23°C         4         ASTM D626         ASTM D626           Ibrough Londched, 23°C         4         ASTM D626         ASTM D626           Ibrough Londched, 23°C         4	MECHANICAL			
Tensile Strain, Jrd, Type I, 50 mm/min         6.3         \$         ASTM D638           Tensile Strain, Jrd, Type I, 50 mm/min         98.8         \$         ASTM D638           Tensile Modulus, 5 mm/min         210         MPa         ASTM D638           Flexural Stress, Ud. 1.3 mm/min, 50 mm span         39         MPa         ASTM D698           Flexural Stress, Ud. 1.3 mm/min, 50 mm span         370         MPa         ASTM D790           Impact, notched, 23°C         80         1/m         ASTM D566           Instrumented Dart Impact Total Energy, 23°C         74         1/m         ASTM D636           Instrumented Dart Impact Total Energy, 23°C         74         2         ASTM D648           HDT, 0.45 Mps, 3.2 mm, unannealed         140         °C         ASTM D648           HDT, 1.42 Mps, 3.2 mm, unannealed         30         °C         ASTM E831           CTE, 40°C to 40°C, filow         56:50         1/°C         ASTM E831           CTE, 40°C to 40°C, slow         50:00         30:00         30:00           CTE, 40°C to 40°C, slow         50:00         30:00         30:00           CTE, 40°C to 40°C, slow         50:00         30:00         30:00           Mel Straining, Flow, 3.2 mm, unannealed         50:00         30:00	Tensile Stress, yld, Type I, 50 mm/min	61	MPa	ASTM D638
Tensile Strain, brk. Type I, 50 mm/min         98.8         %         ASTM D638           Tensile Modulus, 5 mm/min         2210         MPa         ASTM D638           Flexural Modulus, 13 mm/min, 50 mm span         99         MPa         ASTM D790           IENEURAL Modulus, 3 mm/min, 50 mm span         90         MPa         ASTM D790           IENEURAL Modulus, 3 mm/min, 50 mm span         90         MPa         ASTM D790           IENEURAL Modulus, 3 mm/min, 50 mm span         800         J/m         ASTM D780           IENEURAL MORIA, 30°C         800         J/m         ASTM D586           Izod Impact, notched, 30°C         152         J/m         ASTM D586           Izod Impact, notched, 30°C         30         J/m         ASTM D586           Izot Impact, notched, 30°C         40         ASTM D586         ASTM D586           Izot Impact, notched, 30°C         40         ASTM D586         ASTM D586           Izot Impact, notched, 30°C         40         ASTM D686         ASTM D586           Izot Softening Temp, Rate 8/50         41         ASTM D686         ASTM D688           IEVE 4,00°C to 40°C, ridow         66         66         ASTM D687         ASTM D688           IEVE 4,00°C to 40°C, ridow         50         ASTM D688 </td <td>Tensile Stress, brk, Type I, 50 mm/min</td> <td>57</td> <td>MPa</td> <td>ASTM D638</td>	Tensile Stress, brk, Type I, 50 mm/min	57	MPa	ASTM D638
Tensile Modulus, 5 mm/min         2100         MPa         ASTM D638           Flexural Stress, yid, 1.3 mm/min, 50 mm span         99         MPa         ASTM D790           Flexural Modulus, 1.3 mm/min, 50 mm span         2370         MPa         ASTM D790           Flexural Modulus, 1.3 mm/min, 50 mm span         80         I/m         ASTM D256           Izod Impact, notched, 23°C         80         I/m         ASTM D256           Izod Impact, notched, 30°C         152         I/m         ASTM D3763           Izotal Impact, notched, 30°C         45         Teneman         I/m         ASTM D3763           Izotal Impact, notched, 30°C         45         45         ASTM D3763         ASTM D3763           Izotal Impact, notched, 30°C         45         ASTM D3763         ASTM D3763         ASTM D3763           Izotal Impact, notched, 30°C         45         ASTM D3763         ASTM D3763         ASTM D3763           Izotal Impact, notched, 30°C         45	Tensile Strain, yld, Type I, 50 mm/min	6.3	%	ASTM D638
Flexural Stress, yd. 1.3 mm/min, 50 mm span         99         MR9         ASTM D790           Flexural Modulus, 1.3 mm/min, 50 mm span         2370         MR9         ASTM D790           IMPACT           Load Impact, notched, 23°C         80         1/m         ASTM D256           Load Impact, notched, 30°C         152         1/m         ASTM D256           Instrumented Dart Impact Total Energy, 23°C         74         1         2         ASTM D1525           Instrumented Dart Impact Total Energy, 23°C         14         2         ASTM D1525         ASTM D1525           HOTTAL STATE MEDIA STATE	Tensile Strain, brk, Type I, 50 mm/min	98.8	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span       2370       MPa       ASTM D790         IMPACT       IMPACT       357M D256       137m       ASTM D256         Izod Impact, notched, 3°C       360       JJm       ASTM D256         Izot Impact, notched, 3°C       362       JJm       ASTM D256         Instrumented Dart Impact Total Energy, 23°C       74       2       ASTM D152         THERMAL         Vicas Softening Temp, Rate 8/50       45       C       ASTM D1525         HDT, 1.82 MPa, 3.2 mm, unannealed       140       °C       ASTM D648         HDT, 1.82 MPa, 3.2 mm, unannealed       6.55 C9       1°C       ASTM E831         CTE, 40°C to 40°C, 10w       6.55 C9       1°C       ASTM E831         CTE, 40°C to 40°C, 10w       6.55 C9       1°C       ASTM E831         MOd Shrinkage, 10w 32, 2 mm, unannealed       5.5 C9       8       SAIC method         Mod Shrinkage, 10w 22, 2 mm, unannealed       6.55 C9       9       9       0.50 G8         MOd Shrinkage, 10w 22, 2 mm, unannealed       5.5 C9       8       30 G8       9       0.50 G8       9       0.50 G8       9       0.50 G8       9       0.50 G8 <th< td=""><td>Tensile Modulus, 5 mm/min</td><td>2210</td><td>MPa</td><td>ASTM D638</td></th<>	Tensile Modulus, 5 mm/min	2210	MPa	ASTM D638
IMPACT         IZAGO Impact, notched, 23°C         800         J/m         ASTM D256           izod Impact, notched, 30°C         152         J/m         ASTM D256           instrumented Dart Impact Total Energy, 23°C         74         J/m         ASTM D256           ITERMAC         V         STM D3763         TMD D3763           ITERMAD         V         C         ASTM D3763           ITER, 045 MPa, 3.2 mm, unannealed         140         °         C         ASTM D648           IDT, 1.82 MPa, 3.2 mm, unannealed         30         °         C         ASTM D648           CET, 40°C to 40°C, folow         6.56.9         1/°         ASTM E831           CET, 40°C to 40°C, folow         12         ASTM E831           Vical Softening Temp, Rate B/120         12         ASTM E831           Vical Softening Temp, Rate B/120         12         ASTM E831           Vical Softening Temp, Rate B/120         12         ASTM E831           William Space         12         ASTM E831           Publication Space         12         ASTM E831           Bern Space         12         ASTM D1238           Brown Space         12         ASTM D1238           Brown Space         12         ASTM D1238	Flexural Stress, yld, 1.3 mm/min, 50 mm span	99	MPa	ASTM D790
Ized Impact, notched, 3°C800JmASTM D256Ized Impact, notched, 3°C152JmASTM D256Istrumented Dart Impact Total Energy, 2°C74JmJmASTM D256THEXENTVicat Softening Temp, Rate B/5045CASTM D525BDT, 0.45 MPa, 3.2 mm, unannealed140°CASTM D648BDT, 0.45 MPa, 3.2 mm, unannealed130°CASTM D648CTE, 40°C to 40°C, flow6.60-5010°CASTM E831CTE, 40°C to 40°C, flow6.60-5010°CASTM E831Visat Softening Temp, Rate B/12015-07\$100 minASTM E831Mold Sninkage, flow, 3.2 mm5-0.72\$100 minASTM D238Melt Flow Rate, 300°C/1.2 kgf15-0\$1.90ASTM D238Density1990 minASTM D238Uvellow Card Link1212YesUvellow Card Link1212YesUvellow Card Link1212YesUverlow Card Link1212YesUverlow Card Link1212YesUverlow Card Link12YesYesUverlow Card Link12YesYes <tr< td=""><td>Flexural Modulus, 1.3 mm/min, 50 mm span</td><td>2370</td><td>MPa</td><td>ASTM D790</td></tr<>	Flexural Modulus, 1.3 mm/min, 50 mm span	2370	MPa	ASTM D790
Ize of Impact, notched, -30°C       52       J/Impact       ASM D256         Instrumented Dart Impact Total Energy, 23°C       74       J       ASM D3763         THERMAL         Vicat Softening Temp, Rate BJ50       145       °C       ASTM D618         HDT, 0.45 MPa, 3.2 mm, unannealed       140       °C       ASTM D648         CTE, -40°C to 40°C, flow       6.56 P5       1/°C       ASTM B831         CTE, -40°C to 40°C, flow       6.66 P5       1/°C       ASTM E831         Vicat Softening Temp, Rate BJ120       147       °C       ASTM E831         Vicat Softening Temp, Rate BJ120       157       SMIC R831       SMIC R831         Will Flow Rate, 300°C/1.2 kgf       5.5 − 7.7       \$MIC R90       ASTM D618       SMIC R811         Melt Flow Rate, 300°C/1.2 kgf       19       9 mm       ASTM D123       SMIC R811         Vical Wellow Card Link       121562-100989271       9 mm       19 mm<	IMPACT			
Instrumented Dart Impact Total Energy, 23°C         49         Jenate Softering         ASM D3763         ASM D3752           IteRNAL         C         ASM D1525         ASM D1525         ASM D1525         ASM D1525         ASM D1525         ASM D4648         ASM D4648         ASM D4648         ASM D4648         ASM D4648         ASM D4648         ASM D648         ASM D648 </td <td>Izod Impact, notched, 23°C</td> <td>800</td> <td>J/m</td> <td>ASTM D256</td>	Izod Impact, notched, 23°C	800	J/m	ASTM D256
THERMAL           Vicat Softening Temp, Rate B/50         145         °C         ASTM D1255           HDT, 0.45 MPa, 3.2 mm, unannealed         140         °C         ASTM D648           HDT, 1.82 MPa, 3.2 mm, unannealed         30         °C         ASTM D648           CTE, 40°C to 40°C, flow         5.56.95         1/°C         ASTM E831           CTE, 40°C to 40°C, xiflow         6.66.95         1/°C         ASTM E831           Vicat Softening Temp, Rate B/120         47         S         XSM E831           Vicat Softening Temp, Rate B/120         5.5-0.7         \$         XSM E811           MUSICAL         1.9         3/10 min         ASTM D1238           Mel Flow Rate, 300°C/1.2 kgf         6         5.0-0.7         \$         XSM D1238           Density         1.9         3/10 min         ASTM D1238           PLAME CHARACTERISTICS         3         XSM D1238           Ut Sollow Card Link         5         121562-100989271         \$         1           Ut Compliant, 94H8 Flame Class Rating         8         2         1           Ut Compliant, 94H8 Flame Class Rating         2         4         1           Drying Time         2         4         1 <th< td=""><td>Izod Impact, notched, -30°C</td><td>152</td><td>J/m</td><td>ASTM D256</td></th<>	Izod Impact, notched, -30°C	152	J/m	ASTM D256
Vicas Softening Temp, Rate B J50         145         °C         ASTM D1525           HDT, 0.45 MPa, 3.2 mm, unannealed         140         °C         ASTM D648           HDT, 1.82 MPa, 3.2 mm, unannealed         130         °C         ASTM D648           CTE, 40°C to 40°C, flow         5.560         1/°C         ASTM E831           CTE, 40°C to 40°C, xflow         6.6605         1/°C         ASTM E831           Vicas Softening Temp, Rate B J20         47         °C         150 306           PKYSICAL         V         350 ABIC method         150 306           Met Flow Rate, 300°C/1.2 kgf         5.5 - 0.7         \$10 mm         ASTM D1238         ASTM D1238           PLANCE CHARACTERISTICS         1         150 mm         ASTM D1238	Instrumented Dart Impact Total Energy, 23°C	74	J	ASTM D3763
HDT, 0.45 MPa, 3.2 mm, unannealed  HDT, 0.45 MPa, 3.2 mm, unannealed  HDT, 0.45 MPa, 3.2 mm, unannealed  CTE, 40°C to 40°C, flow  CTE, 40°C to 40	THERMAL			
HDT, 1.82 MPa, 3.2mm, unanealed  CTE, -40°C to 40°C, flow  CTE, -40°C	Vicat Softening Temp, Rate B/50	145	°C	ASTM D1525
CFE. 40°C to 40°C, flow6.5E.051/°CASTM E831CTE. 40°C to 40°C, xflow6.6E.051/°CASTM E831Vicat 50ftening Temp, Rate B/12017°C10NO 306PHYSICALWhistinkage, flow, 3.2 mm0.5 − 0.7%SABIC methodMelt Flow Rate, 300°C/1.2 kgf69/10 minASTM D1238Density1199/cm³150 1183LAME CHARACTERISTICSU. Vellow Card Link£121562-100989271U. Compliant, 94HB Flame Class Rating120°C-Drying Temperature120°C-Drying Temperature2 − 4Hrs-Barrel-Zone 1 Temperature240 − 270°C-Barrel-Zone 2 Temperature240 − 270°C-Barrel-Zone 3 Temperature240 − 270°C-Barrel-Zone 3 Temperature240 − 270°C-Bopper Temperature100 − 120°C-Hopper Temperature100 − 120°C-Hopper Temperature200 − 200 − 200°C-Hopper Temperature	HDT, 0.45 MPa, 3.2 mm, unannealed	140	°C	ASTM D648
CFE, 40°C to 40°C, xflow6.6E.051,°CASTM E831Vicat Softening Temp, Rate B/120147°C150.306PHYSICALMold Shrinkage, flow, 3.2 mm0.5 − 0.7%ASIM CmethodMelt Flow Rate, 300°C/1.2 kgf69/0 minASTM D1238Density1.99ycm²150.1183HAME CHARACTERISTICSU. You Digitar, 94HB Flame Class RatingE121562-100989271*1.9U. You Digitar, 94HB Flame Class Rating2.0mmU.94 by SABIC-IPDrying Temperature120°C*Drying Temperature2-4Hris*Barrel-Zone 1 Temperature240 − 270°C*Barrel-Zone 2 Temperature240 − 270°C*Barrel-Zone 3 Temperature240 − 270°C*Barrel-Zone 3 Temperature240 − 270°C*Bopper Temperature240 − 270°C*Boppe	HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D648
Vicat Softening Temp, Rate B/120147°C150 306PHYSICALMold Shrinkage, flow, 3.2 mm0.5 – 0.7%SABIC methodMelt Flow Rate, 300°C/1.2 kgf69/10 minASTM D1238Density1.9ycm³150 1183TAME CHARACTERISTICSUt Vellow Card Link121562-100989271Ut Compliant, 94HB Flame Class Rating0.8mmU.94 by SABIC-IPDrying Temperature120°CDrying Time2 – 4HrsBarrel - Zone 1 Temperature240 – 270°CBarrel - Zone 2 Temperature240 – 270°CBarrel - Zone 3 Temperature240 – 270°CHopper Temperature100 – 120°CHopper Temperature100 – 120°CHopper Temperature220 – 260°C	CTE, -40°C to 40°C, flow	6.5E-05	1/°C	ASTM E831
PHYSICAI  Mold Shrinkage, flow, 3.2 mm	CTE, -40°C to 40°C, xflow	6.6E-05	1/°C	ASTM E831
Mold Shrinkage, flow, 3.2 mm	Vicat Softening Temp, Rate B/120	147	°C	ISO 306
Melt Flow Rate, 300°C/1.2 kgf 6 9/10 min ASTM D1238  Density 1.19 9/cm³ 150 1183  FLAME CHARACTERISTICS  UL Yellow Card Link 121562-100989271	PHYSICAL			
Density 1.19 g/cm3 iSO 1183  FLAME CHARACTERISTICS  UL Yellow Card Link 5.121562-100989271 5.1014 j.1014 j.	Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
FLAME CHARACTERISTICS  UL Yellow Card Link  UL Compliant, 94HB Flame Class Rating  MULTIWALL SHEET EXTRUSION  Drying Temperature  Drying Time  2-4  Hrs  Barrel - Zone 1 Temperature  240 - 270  Cardel - Zone 2 Temperature  Barrel - Zone 3 Temperature  400 - 270  Cardel - Zone 3 Temperature  100 - 120  Adapter Temperature  200 - 200  Cardel - Zone 3 Temperature	Melt Flow Rate, 300°C/1.2 kgf	6	g/10 min	ASTM D1238
Li Yellow Card Link Li Compliant, 94HB Flame Class Rating  MULTIWALL SHEET EXTRUSION  Torjing Temperature  Projing Time 2-4  Aurel - Zone 1 Temperature  Aurel - Zone 2 Temperature  Aurel - Zone 3 Temperature  August - Z	Density	1.19	g/cm³	ISO 1183
NUL Compliant, 94HB Flame Class Rating  MULTIWALL SHEET EXTRUSION  Drying Temperature  120 2-4 Hrs  Barrel - Zone 1 Temperature  240 - 270  C Barrel - Zone 2 Temperature  240 - 270  C Barrel - Zone 3 Temperature  100 - 120  C Adapter Temperature  220 - 260  C C C C C C C C C C C C C C C C C C	FLAME CHARACTERISTICS			
MULTIWALL SHEET EXTRUSION  Prying Temperature  120  2-4  Hrs  Barrel - Zone 1 Temperature  240 - 270  C Barrel - Zone 3 Temperature  240 - 270  C Barrel - Zone 3 Temperature  100 - 120  C Adapter Temperature  220 - 260  C C C C C C C C C C C C C C C C C C	UL Yellow Card Link	E121562-100989271	-	
Drying Temperature         120         °C           Drying Time         2 – 4         Hrs           Barrel - Zone 1 Temperature         240 – 270         °C           Barrel - Zone 2 Temperature         240 – 270         °C           Barrel - Zone 3 Temperature         240 – 270         °C           Hopper Temperature         100 – 120         °C           Adapter Temperature         220 – 260         °C	UL Compliant, 94HB Flame Class Rating	0.8	mm	UL 94 by SABIC-IP
Drying Time2-4HrsBarrel - Zone 1 Temperature240 – 270°CBarrel - Zone 2 Temperature240 – 270°CBarrel - Zone 3 Temperature240 – 270°CHopper Temperature100 – 120°CAdapter Temperature220 – 260°C	MULTIWALL SHEET EXTRUSION			
Barrel - Zone 1 Temperature         240 – 270         °C           Barrel - Zone 2 Temperature         240 – 270         °C           Barrel - Zone 3 Temperature         240 – 270         °C           Hopper Temperature         100 – 120         °C           Adapter Temperature         220 – 260         °C	Drying Temperature	120	°C	
Barrel - Zone 2 Temperature         240 – 270         °C           Barrel - Zone 3 Temperature         240 – 270         °C           Hopper Temperature         100 – 120         °C           Adapter Temperature         220 – 260         °C	Drying Time	2 – 4	Hrs	
Barrel - Zone 3 Temperature 240 – 270 °C Hopper Temperature 100 – 120 °C Adapter Temperature 220 – 260 °C	Barrel - Zone 1 Temperature	240 – 270	°C	
Hopper Temperature         100 – 120         °C           Adapter Temperature         220 – 260         °C	Barrel - Zone 2 Temperature	240 – 270	°C	
Adapter Temperature         220 – 260         °C	Barrel - Zone 3 Temperature	240 – 270	°C	
The second secon	Hopper Temperature	100 – 120	°C	
Die Temperature 220 – 280 °C	Adapter Temperature	220 – 260	°C	
	Die Temperature	220 – 280	°C	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Temperature	220 – 280	°C	
Calibrator Temperature	50 – 100	°C	

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