

# VALOXTM RESIN 310

## **REGION ASIA**

# **DESCRIPTION**

Unreinforced, general purpose. Typical viscosity 5000-7000.

## **TYPICAL PROPERTY VALUES**

Revision 20190628

MECHANICAI         Tensile Stress, yick, Type I, 50 mm/min         91         MPB         ASTM DG83           Tensile Stress, brk, Type I, 50 mm/min         30         %PB         ASTM DG83           Tensile Stress, brk, Type I, 50 mm/min         300         %PB         ASTM DG83           Flexural Stress, brk, 1,3 mm/min, 50 mm span         82         MPB         ASTM D790           Flexural Stress, brk, 1,3 mm/min, 50 mm span         2340         MPB         ASTM D790           Flexural Modus, 1,3 mm/min, 50 mm span         10         PB         ASTM D790           Flexural Modus, 1,3 mm/min, 50 mm span         10         PB         ASTM D790           Flexural Modus, 1,3 mm/min, 50 mm span         10         PB         ASTM D790           Flexural Modus, 2,3 mm/min, 50 mm span         10         PB         ASTM D790           Bodynact, unantothed, 23 mm         30         JIm         ASTM D812           Codimpact, unothed, 23 mm         30         JIm         ASTM D812           Gardier, 23 mm         50         JIm         ASTM D812           Gardier, 23 mm         51         S         ASTM D812           Gardier, 23 mm         40         ASTM D812         ASTM D812           GER, MD, 4,4 mm, unannealed         51         S	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Ternsile Stress, brk, Type I, 50 mm/min         51         MPa         ASTM D638           Ternsile Stress, brk, Type I, 50 mm/min         300         \$6         ASTM D638           Flexural Stress, brk, 1,3 mm/min, 50 mm span         82         MPa         ASTM D790           Flexural Stress, brk, 1,3 mm/min, 50 mm span         82         MPa         ASTM D790           Hexural Modulus, 1,3 mm/min, 50 mm span         82         MPa         ASTM D790           Hardness, Rockwell R         117         WW         ASTM D790           More To Minary         BY         ASTM D491         ASTM D491           Ized Impact, notched, 23°C         60         Jm         ASTM D492           Gardner, 23°C         40         Jm         ASTM D630           Gardner, 23°C         40         Jm         ASTM D648           Modified Gardner, 23°C         40         Jm         ASTM D648           Modified Gardner, 23°C         40         Jm         ASTM D648           Modified Gardner, 23°C         45         ASTM D648         ASTM D648           CET, 40°C to 4	MECHANICAL			
Tensile Strain, brik, Type I, 50 mm/min         300         %         ASTM D638           Flexural Stress, ybl. 1.3 mm/min, 50 mm span         82         MFa         ASTM D790           Flexural Modulus, 1.3 mm/min, 50 mm span         2340         MFa         ASTM D790           Hardness, Rockwell R         117         -         ASTM D780           Hordness, Rockwell R         1602         Jm         ASTM D485           Bod Impact, unnotched, 23°C         53         Jm         ASTM D826           Gordner, 23°C         60         Jm         ASTM D8302           Gordner, 23°C         40         Jm         ASTM D648           Modified Gardner, 23°C         54         ASTM D648         ASTM D648           HOTT, 4.5 MPa, 6.4 mm, unannealed         154         C         ASTM D648           HOT, 1.82 MPa, 6.4 mm, unannealed         154         C         ASTM D648           TCT, 40°C to 40°C, flow         31.00         C         ASTM D648           Relative Temp Index, Bec         120         C         U.7 468           Relative Temp Index, Mech w/l impact         120         C         U.7 488           Relative Temp Index, Mech w/l impact         131         S         ASTM D792           Specific Gravity	Tensile Stress, yld, Type I, 50 mm/min	51	MPa	ASTM D638
Flexural Stress, byd, 1.3 mm/min, 50 mm span         82         MFa         ASTM D790           Flexural Stress, brk, 1.3 mm/min, 50 mm span         23         MFa         ASTM D790           Flexural Modulus, 1.3 mm/min, 50 mm span         2340         MFa         ASTM D790           Hardness, Rockwell R         17         2         ASTM D790           Hordness, Rockwell R         160         Jm         ASTM D456           Hordness, Rockwell R         160         Jm         ASTM D456           Hordness, Cardiner, 23°C         36         Jm         ASTM D256           Gradinger, 23°C         40         Jm         ASTM D302           Modified Gardner, 23°C         40         Jm         ASTM D488           Modified Gardner, 23°C         40         2         ASTM D492           HDT, 182 MPa, 64 mm, unannealed         154         *C         ASTM D488           ELE ADY LONG         1,20         ASTM D488         ASTM D488           ELE GOY LO 13°C (100°         1,20         ASTM D488         ASTM D488           Ele Live Temp Index, Mech wy Impact         120         2         ASTM D488           Relative Temp Index, Mech wy Impact         31         3         4         ASTM D492           Specific Volume<	Tensile Stress, brk, Type I, 50 mm/min	51	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span         82         MFR         ASTM D790           Flexural Modulus, 1.3 mm/min, 50 mm span         2340         MPa         ASTM D790           Hardness, Rockwell R         11         20         ASTM D785           MBACT         TURNCT         TURNCT         TURNCT           Load Impact, unotched, 23°C         1602         1/m         ASTM D4812           Gardner, 23°C         40         1/m         ASTM D692           Modified Gardner, 23°C         40         2         ASTM D648           Modified Gardner, 23°C         4         4         ASTM D648           Modified Gardner, 23°C         4         4         ASTM D648           Modified Gardner, 23°C         4         4         C         ASTM D648           MEEMAL         4         4         ASTM D648         ASTM D648           Melle Yell Color 138°C (both 23°C)         4         2         4         4           Relative Temp Index, Mech w/ joing account of 25°C, 24°C, 24°C,	Tensile Strain, brk, Type I, 50 mm/min	300	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span         240         MPa         ASTM D790           Hardness, Rockwell R         177	Flexural Stress, yld, 1.3 mm/min, 50 mm span	82	MPa	ASTM D790
Hardness, Rockwell R         17         command         ASTM D785           IMPACT         Impact, unnotched, 23°C         1602         JJm         ASTM D4812           Izod Impact, unnotched, 23°C         53         JJm         ASTM D5029           Gardner, 23°C         40         J m         ASTM D3029           Modified Gardner, 23°C         40         C         ASTM D8029           HBT, 0.45 MRa, 6.4 mm, unannealed         54         °C         ASTM D648           HDT, 1.25 MRa, 6.4 mm, unannealed         54         °C         ASTM D648           HDT, 1.35 MRa, 6.4 mm, unannealed         54         °C         ASTM D648           TCE, 40°C to 40°C, flow         1.20         ASTM D648         ASTM D648           CTE, 40°C to 40°C, flow         1.20         ASTM B831         ASTM D648           Relative Temp Index, Mech w/Impact         120         °C         U.7468           Relative Temp Index, Mech w/Impact         131         S         Y         ASTM D792           PSPSICIA         5         ASTM D792         S         ASTM D792           Specific Yolume         1         1         N         ASTM D792           Specific Yolume         1         2         ASTM D792         ASTM D792 <td>Flexural Stress, brk, 1.3 mm/min, 50 mm span</td> <td>82</td> <td>MPa</td> <td>ASTM D790</td>	Flexural Stress, brk, 1.3 mm/min, 50 mm span	82	MPa	ASTM D790
IMPACT         Izod Impact, unnotched, 23°C         1602         J/m         ASTM D2812           Izod Impact, notched, 23°C         53         J/m         ASTM D256           Gardner, 23°C         40         J         ASTM D3029           Modified Gardner, 23°C         40         J         ASTM D3029           THERMAC         ************************************	Flexural Modulus, 1.3 mm/min, 50 mm span	2340	MPa	ASTM D790
Ized Impact, norched, 23°C         560         I/m         ASTM D256           Ized Impact, notched, 23°C         53         I/m         ASTM D362           Gardner, 23°C         40         1         ASTM D3029           Modified Gardner, 23°C         40         2         ASTM D3029           HDT, 0.45 MPa, 6.4 mm, unannealed         54         C         ASTM D648           HDT, 1.82 MPa, 6.4 mm, unannealed         54         °         ASTM D648           CEL, 40°C to 10°C, flow         1.9°C         ASTM D648           CEL, 40°C to 10°C, flow         1.9°C         ASTM D648           CEL, 40°C to 10°C, flow         1.9°C         ASTM D648           CEL, 40°C to 138°C, flow         1.9°C         ASTM D648           Relative Temp Index, Mech w/j impact         1.20         °         U.7 468           Relative Temp Index, Mech w/j impact         1.9°C         WITT M68         WITT M68           Relative Temp Index, Mech w/j impact         1.9°C         ASTM D792         WITT M68           Specific Gravity         1.9°C         ASTM D792         Specific Gravity         ASTM D792         ASTM D792           Specific Volume         0.9°C         ASTM D792         ASTM D792         ASTM D792         ASTM D792         ASTM D792 <td>Hardness, Rockwell R</td> <td>117</td> <td>-</td> <td>ASTM D785</td>	Hardness, Rockwell R	117	-	ASTM D785
Ize of Impact, notched, 23°C         53         J/m         ASTM D3029           Gardner, 23°C         40         J         ASTM D3029           Hotflied Gardner, 23°C         40         J         ASTM D3029           THEKMAL           WISH D45 MPa, 6.4 mm, unannealed         54         °         C         ASTM D648           DFD, 1.82 MPa, 6.4 mm, unannealed         54         °         C         ASTM D648           DFD, 1.92 MPa, 6.4 mm, unannealed         54         °         C         ASTM D648           CFE, 40°C to 40°C, flow         8.16.05         1/°         ASTM D648           CFE, 40°C to 40°C, flow         1,1°         ASTM D648           Relative Ten Janker         1,2°         ASTM D648           Relative Ten Janker         1,2°         ASTM D792           Specific Gravity         3,1         3,2°         ASTM D792           William Lander         3,2°         ASTM D792         ASTM D792 </td <td>IMPACT</td> <td></td> <td></td> <td></td>	IMPACT			
Gardner, 23°C         40         1         ASTM D3029           Modified Gardner, 23°C         40         1         ASTM D3029           THERMAL           HOT, 0.45 MPa, 6.4 mm, unannealed         154         °C         ASTM D648           HDT, 1.82 MPa, 6.4 mm, unannealed         54         °C         ASTM D648           CTE, 60°C to 138°C, flow         1.90         ASTM E831         C           CTE, 60°C to 138°C, flow         1.39604         1°C         ASTM E831           Relative Temp Index, Blec         120         °C         MIC 468           Relative Temp Index, Mech w/o Impact         120         °C         U. 7468           Relative Temp Index, Mech w/o Impact         120         °C         U. 7468           Relative Temp Index, Mech w/o Impact         120         °C         U. 7468           Relative Temp Index, Mech w/o Impact         120         °C         U. 7468           Relative Temp Index, Mech w/o Impact         120         °C         WIT 468           Relative Temp Index, Mech w/o Impact         120         °C         MIC 7468           Relative Temp Index, Mech w/o Impact         120         °C         ASTM D792           Water Absorption, (23°C/24hrs)         0.8	Izod Impact, unnotched, 23°C	1602	J/m	ASTM D4812
Modified Gardner, 23°C         40         J         ASTM D0329           THERMAL         C         ASTM D648           HDT, 0.45 MPa, 6.4 mm, unannealed         54         C         ASTM D648           CTE, 40°C to 40°C, flow         51.80         1/°C         ASTM E831           CTE, 40°C to 138°C, flow         1.39€-04         1/°C         ASTM E831           CRILL TEMPI Index, Mech w/Impact         120         °C         U.7 468           Relative Temp Index, Mech w/Impact         10         °C         U.7 468           Relative Temp Index, Mech w/Impact         10         °C         U.7 468           Relative Temp Index, Mech w/Impact         10         °C         U.7 468           Relative Temp Index, Mech w/Impact         10         °C         U.7 468           Relative Temp Index, Mech w/Impact         10         °C         U.7 468           Relative Temp Index, Mech w/Impact         10         °C         U.7 468           Relative Temp Index, Mech w/Impact         10         °C         U.7 468           Relative Temp Index, Mech w/Impact         20         M.7 468         M.7 192           Specific Gravity         3.1         3.1         3.1         3.1         3.1         4.1         3.1	Izod Impact, notched, 23°C	53	J/m	ASTM D256
HORANA           HDT, 0.45 MPa, 6.4 mm, unannealed         154         °C         ASTM D648           HDT, 1.82 MPa, 6.4 mm, unannealed         54         °C         ASTM D648           CTE, 40°C to 40°C, flow         8.16.05         1/°C         ASTM E831           CTE, 40°C to 138°C, flow         1.39-04         1/°C         ASTM E831           Relative Temp Index, Elec         120         °C         U.7468           Relative Temp Index, Mech w/Impact         131         S         ASTM D579           Specific Gravity         5.2         S         ASTM D792           Specific Gravity         0.98         S         ASTM D570           Mold Shrinkage, flow, 0.75-2.3 mm         1.5-2.3         %         ASIM Cmethod           Mold Shrinkage, flow, 0.75-2.3 mm         1.6-2.4         % <t< td=""><td>Gardner, 23°C</td><td>40</td><td>J</td><td>ASTM D3029</td></t<>	Gardner, 23°C	40	J	ASTM D3029
HDT, 0.45 MPa, 6.4 mm, unannealed         154         °C         ASTM D648           HDT, 1.82 MPa, 6.4 mm, unannealed         54         °C         ASTM D648           CTE, 40°C to 40°C, flow         8.16.05         1/°C         ASTM E831           CTE, 60°C to 138°C, flow         1.39£04         1/°C         ASTM E831           Relative Temp Index, Mech w/impact         120         °C         U.746B           Relative Temp Index, Mech w/jo impact         120         °C         U.746B           Relative Temp Index, Mech w/jo impact         131         °C         35TM D792           Relative Temp Index, Mech w/jo impact         131         °C         35TM D792           Specific Gravity         131         °C         35TM D792           Specific Yolume         20         25TM D792         35TM D792           Water Absorption, (23°C/24hrs)         0.91.6         35TM D792         35TM D792           Mold Shrinkage, flow, 0.75-2.3 mm         1.5-2.3         \$80K method         36K method           Mold Shrinkage, xflow, 2.3-4.6 mm         1.6-2.4         \$81         36K method           Mold Shrinkage, xflow, 2.3-4.6 mm         4.6-2.4         \$81         36K method           Melt Viscosity         2.4-2         \$81         36K method<	Modified Gardner, 23°C	40	J	ASTM D3029
HDT, 1.82 MPa, 6.4 mm, unannealed         54         °C         ASTM D648           CTE, 40°C to 40°C, flow         8.16.05         1/°C         ASTM E831           CTE, 60°C to 138°C, flow         1.39E-04         1/°C         ASTM E831           Relative Temp Index, Elec         120         °C         U.746B           Relative Temp Index, Mech w/impact         120         °C         U.746B           Relative Temp Index, Mech w/o impact         140         °C         U.746B           PWISICIA           Specific Gravity         3.13         °C         ASTM D792           Specific Volume         0.76         m³/g         ASTM D792           Water Absorption, (23°C/24hrs)         0.08         %         ASTM D792           Water Absorption, 23°C/24hrs)         0.9-1.6         %         ASIM D570           Mold Shrinkage, flow, 0.75-2.3 mm         1-1.7         %         ASIM Cmethod           Mold Shrinkage, flow, 0.75-2.3 mm         1.6-2.4         %         ASIM Cmethod           Melt Viscosity         600         p-as         ASIM D64           Melt Viscosity         4.E+16         Ω.cm         ASTM D149           Dielectric Strength, in air, 1.6 mm         3.2         W/mm	THERMAL			
CFE. 40°C to 40°C, flow         8.16.05         1/°C         ASTM E831           CFE, 60°C to 138°C, flow         1.396.04         1/°C         ASTM E831           Relative Temp Index, Elec         120         °C         U.746B           Relative Temp Index, Mech w/ Impact         120         °C         U.746B           Relative Temp Index, Mech w/ Impact         140         °C         U.746B           Relative Temp Index, Mech w/ Impact         140         °C         U.746B           Relative Temp Index, Mech w/ Impact         140         °C         U.746B           Relative Temp Index, Mech w/ Impact         140         °C         U.746B           Relative Temp Index, Mech w/ Impact         140         °C         U.746B           Relative Temp Index, Mech w/ Impact         140         °C         W.746B           Possibility         ASTM D792         M.750         S.750         S.750         M.750	HDT, 0.45 MPa, 6.4 mm, unannealed	154	°C	ASTM D648
CTE, 60°C to 138°C, flow1.39E041/°CASTM E831Relative Temp Index, Elec120°CUL 746BRelative Temp Index, Mech w/impact120°CUL 746BRelative Temp Index, Mech w/o impact140°CUL 746BPHYSICALSpecific Gravity3.11·ASTM D792Specific Volume.076∞³/gASTM D792Water Absorption, (23°C/24hrs).08%ASTM D792Mold Shrinkage, flow, 0.75-2.3 mm.99-1.6%ASTM D570Mold Shrinkage, flow, 2.3-4.6 mm.1-1.7%ASIB C methodMold Shrinkage, xflow, 0.75-2.3 mm1-1.7%ASIB C methodMold Shrinkage, xflow, 2.3-4.6 mm1-1.7%ASIB C methodMelt Viscosity00PasASIB C methodELECTRICALELECTRICALV/mASIM D257Dielectric Strength, in air, 1.6 mm3.2W/mASIM D149Dielectric Strength, in air, 3.2 mm15.7W/mASIM D149Dielectric Strength, in oil, 1.6 mm3.323.2W/mASIM D149	HDT, 1.82 MPa, 6.4 mm, unannealed	54	°C	ASTM D648
Relative Temp Index, Elec         120         °C         UL 746B           Relative Temp Index, Mech w/impact         120         °C         UL 746B           Relative Temp Index, Mech w/o impact         140         °C         UL 746B           PHYSICAL           Specific Gravity         1.31         -         ASTM D792           Specific Volume         0.76         cm³/g         ASTM D792           Water Absorption, (23°C/24hrs)         0.08         %         ASIM D570           Mold Shrinkage, flow, 0.75-2.3 mm         0.9-1.6         %         ABIC method           Mold Shrinkage, xflow, 2.3-4.6 mm         1-1.7         %         ABIC method           Mold Shrinkage, xflow, 2.3-4.6 mm         1.6-2.4         %         ABIC method           Melt Viscosity         600         Pa-s         ABIC method           Melt Viscosity         ALE+16         Q.cm         ASTM D257           Dielectric Strength, in air, 1.6 mm         23.2         KV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         KV/mm         ASTM D149	CTE, -40°C to 40°C, flow	8.1E-05	1/°C	ASTM E831
Relative Temp Index, Mech w/impact         120         °C         UL 746B           Relative Temp Index, Mech w/o impact         140         °C         UL 746B           PHYSICAL           Specific Gravity         1.31         C         ASTM D792           Specific Volume         0.76         cm³/g         ASTM D792           Water Absorption, (23°C/24hrs)         0.08         %         ASTM D792           Mold Shrinkage, flow, 0.75-2.3 mm         0.9 − 1.6         %         ASBIC method           Mold Shrinkage, xflow, 2.3-4.6 mm         1.5 − 2.3         %         SABIC method           Mold Shrinkage, xflow, 2.3-4.6 mm         1.6 − 2.4         %         SABIC method           Melt Viscosity         600         Pa-s         SABIC method           ELECTRICAL         X         SABIC method           Volume Resistivity         4,E+16         Ω.cm         ASTM D257           Dielectric Strength, in air, 1.6 mm         3.2         W//mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         5.7         W//mm         ASTM D149	CTE, 60°C to 138°C, flow	1.39E-04	1/°C	ASTM E831
Relative Temp Index, Mech w/o impact 140 °C UL 746B  PHYSICAL  Specific Gravity 1.31	Relative Temp Index, Elec	120	°C	UL 746B
PHYSICAL           Specific Gravity         1.31         - ASTM D792           Specific Volume         0.76         cm³/g         ASTM D792           Water Absorption, (23°C/24hrs)         0.08         %         ASTM D570           Mold Shrinkage, flow, 0.75-2.3 mm         0.9 − 1.6         %         SABIC method           Mold Shrinkage, sflow, 0.75-2.3 mm         1 − 1.7         %         SABIC method           Mold Shrinkage, xflow, 2.3-4.6 mm         1.6 − 2.4         %         SABIC method           Melt Viscosity         600         pa-s         SABIC method           Melt Viscosity         >4.E+16         Ω.cm         ASTM D257           Dielectric Strength, in air, 1.6 mm         23.2         kV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149	Relative Temp Index, Mech w/impact	120	°C	UL 746B
Specific Gravity1.31-ASTM D792Specific Volume0.76cm³/gASTM D792Water Absorption, (23°C/24hrs)0.08%ASTM D570Mold Shrinkage, flow, 0.75-2.3 mm0.9 - 1.6%SABIC methodMold Shrinkage, flow, 2.3-4.6 mm1.5 - 2.3%SABIC methodMold Shrinkage, xflow, 0.75-2.3 mm1 - 1.7%SABIC methodMold Shrinkage, xflow, 2.3-4.6 mm1.6 - 2.4%SABIC methodMelt Viscosity600pasSABIC methodELECTRICALVolume Resistivity>4.E+16Ω.cmASTM D257Dielectric Strength, in air, 1.6 mm23.2kV/mmASTM D149Dielectric Strength, in air, 3.2 mm15.7kV/mmASTM D149Dielectric Strength, in oil, 1.6 mm32.2kV/mmASTM D149	Relative Temp Index, Mech w/o impact	140	°C	UL 746B
Specific Volume         0.76         cm³/g         ASTM D792           Water Absorption, (23°C/24hrs)         0.08         %         ASTM D570           Mold Shrinkage, flow, 0.75-2.3 mm         0.9 – 1.6         %         SABIC method           Mold Shrinkage, flow, 0.34.6 mm         1.5 – 2.3         %         SABIC method           Mold Shrinkage, xflow, 0.75-2.3 mm         1 – 1.7         %         SABIC method           Melt Viscosity         600         Pa-s         SABIC method           ELECTRICAL         Volume Resistivity         ASTM D257           Dielectric Strength, in air, 1.6 mm         23.2         kV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149	PHYSICAL			
Water Absorption, (23°C/24hrs)0.08%ASTM D570Mold Shrinkage, flow, 0.75-2.3 mm0.9 - 1.6%SABIC methodMold Shrinkage, xflow, 2.3-4.6 mm1.5 - 2.3%SABIC methodMold Shrinkage, xflow, 0.75-2.3 mm1 - 1.7%SABIC methodMold Shrinkage, xflow, 2.3-4.6 mm1.6 - 2.4%SABIC methodMelt Viscosity600Pa-sSABIC methodELECTRICALVolume Resistivity>4.E+160.cmASTM D257Dielectric Strength, in air, 1.6 mm23.2kV/mmASTM D149Dielectric Strength, in air, 3.2 mm15.7kV/mmASTM D149Dielectric Strength, in oil, 1.6 mm23.2kV/mmASTM D149	Specific Gravity	1.31	-	ASTM D792
Mold Shrinkage, flow, 0.75-2.3 mm0.9 – 1.6%SABIC methodMold Shrinkage, flow, 2.3-4.6 mm1.5 – 2.3%SABIC methodMold Shrinkage, xflow, 0.75-2.3 mm1 – 1.7%SABIC methodMold Shrinkage, xflow, 2.3-4.6 mm1.6 – 2.4%SABIC methodMelt Viscosity600Pa·sSABIC methodELECTRICALVolume Resistivity>4.E+16Ω.cmASTM D257Dielectric Strength, in air, 1.6 mm23.2kV/mmASTM D149Dielectric Strength, in air, 3.2 mm15.7kV/mmASTM D149Dielectric Strength, in oil, 1.6 mm23.2kV/mmASTM D149	Specific Volume	0.76	cm³/g	ASTM D792
Mold Shrinkage, flow, 2.3-4.6 mm         1.5 – 2.3         %         SABIC method           Mold Shrinkage, xflow, 0.75-2.3 mm         1 – 1.7         %         SABIC method           Mold Shrinkage, xflow, 2.3-4.6 mm         1.6 – 2.4         %         SABIC method           Melt Viscosity         Pa-s         SABIC method           ELECTRICAL         Volume Resistivity         ASTM D257           Dielectric Strength, in air, 1.6 mm         23.2         kV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149           Dielectric Strength, in oil, 1.6 mm         23.2         kV/mm         ASTM D149	Water Absorption, (23°C/24hrs)	0.08	%	ASTM D570
Mold Shrinkage, xflow, 0.75-2.3 mm1 – 1.7%SABIC methodMold Shrinkage, xflow, 2.3-4.6 mm1.6 – 2.4%SABIC methodMelt Viscosity600Pa·sSABIC methodELECTRICALVolume Resistivity>4.E+16Ω.cmASTM D257Dielectric Strength, in air, 1.6 mm23.2kV/mmASTM D149Dielectric Strength, in air, 3.2 mm15.7kV/mmASTM D149Dielectric Strength, in oil, 1.6 mm23.2kV/mmASTM D149	Mold Shrinkage, flow, 0.75-2.3 mm	0.9 – 1.6	%	SABIC method
Mold Shrinkage, xflow, 2.3-4.6 mm         1.6 – 2.4         %         SABIC method           Melt Viscosity         600         Pa·s         SABIC method           ELECTRICAL           Volume Resistivity         >4.E+16         Ω.cm         ASTM D257           Dielectric Strength, in air, 1.6 mm         23.2         kV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149           Dielectric Strength, in oil, 1.6 mm         23.2         kV/mm         ASTM D149	Mold Shrinkage, flow, 2.3-4.6 mm	1.5 – 2.3	%	SABIC method
Melt Viscosity         600         Pa-s         SABIC method           ELECTRICAL         Volume Resistivity         >4.E+16         Ω.cm         ASTM D257           Dielectric Strength, in air, 1.6 mm         23.2         kV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149           Dielectric Strength, in oil, 1.6 mm         23.2         kV/mm         ASTM D149	Mold Shrinkage, xflow, 0.75-2.3 mm	1 – 1.7	%	SABIC method
ELECTRICAL       Volume Resistivity     >4.E+16     Ω.cm     ASTM D257       Dielectric Strength, in air, 1.6 mm     23.2     kV/mm     ASTM D149       Dielectric Strength, in air, 3.2 mm     15.7     kV/mm     ASTM D149       Dielectric Strength, in oil, 1.6 mm     23.2     kV/mm     ASTM D149	Mold Shrinkage, xflow, 2.3-4.6 mm	1.6 – 2.4	%	SABIC method
Volume Resistivity         >4.E+16         Ω.cm         ASTM D257           Dielectric Strength, in air, 1.6 mm         23.2         kV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149           Dielectric Strength, in oil, 1.6 mm         23.2         kV/mm         ASTM D149	Melt Viscosity	600	Pa-s	SABIC method
Dielectric Strength, in air, 1.6 mm         23.2         kV/mm         ASTM D149           Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149           Dielectric Strength, in oil, 1.6 mm         23.2         kV/mm         ASTM D149	ELECTRICAL			
Dielectric Strength, in air, 3.2 mm         15.7         kV/mm         ASTM D149           Dielectric Strength, in oil, 1.6 mm         23.2         kV/mm         ASTM D149	Volume Resistivity	>4.E+16	Ω.cm	ASTM D257
Dielectric Strength, in oil, 1.6 mm 23.2 kV/mm ASTM D149	Dielectric Strength, in air, 1.6 mm	23.2	kV/mm	ASTM D149
	Dielectric Strength, in air, 3.2 mm	15.7	kV/mm	ASTM D149
Dielectric Strength, in oil, 3.2 mm 15.7 kV/mm ASTM D149	Dielectric Strength, in oil, 1.6 mm	23.2	kV/mm	ASTM D149
	Dielectric Strength, in oil, 3.2 mm	15.7	kV/mm	ASTM D149



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Relative Permittivity, 100 Hz	3.3	-	ASTM D150
Relative Permittivity, 1 MHz	3.1	-	ASTM D150
Dissipation Factor, 100 Hz	0.002	-	ASTM D150
Dissipation Factor, 1 MHz	0.02	-	ASTM D150
Arc Resistance, Tungsten {PLC}	5	PLC Code	ASTM D495
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Yellow Card Link	<u>E45587-236807</u>	-	-
UL Recognized, 94HB Flame Class Rating	1.47	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	12	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	245 – 260	°C	
Nozzle Temperature	240 – 255	°C	
Front - Zone 3 Temperature	245 – 260	°C	
Middle - Zone 2 Temperature	240 – 255	°C	
Rear - Zone 1 Temperature	230 – 250	°C	
Mold Temperature	50 – 75	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 100	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.013 - 0.025	mm	

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