Propylux® Unfilled

Polypropylene

Westlake Plastics Company

Message:

abrasion. These properties make it suitable for various applications. Propylux Natural, and Void Free are FDA compliant. **Applications Include:** Tanks/tank covers Welding cabinetry Etching rinse tubs Glove boxes Cutting board Fan shrouds and blades Advantages of Propylux: Excellent chemical resistance Superior dimensional stability Low moisture absorption Low density Formable and weldable FDA, USDA General Information Features Food Contact Acceptable Good Abrasion Resistance Good Chemical Resistance Good Dimensional Stability Good Toughness Low Density Low Moisture Absorption Weldable Uses Tanks FDA Unspecified Rating Agency Ratings USDA Unspecified Approval Black Appearance **Colors** Available Natural Color Translucent White Forms Film Rod Sheet

Propylux is made from polypropylene resin. Among its most notable characteristics are its mechanical toughness, chemical resistance, and resistance to

Specific Gravity0.908g/cm³ASTM D792Water Absorption (24 hr)< 0.10%ASTM D570HardnessNominal ValueUnitTest MethodRockwell Hardness (R-Scale)95ASTM D785MechanicalNominal ValueUnitTest MethodTensile Modulus1650MPaASTM D638Tensile Strength (Yield)35.9MPaASTM D638Tensile Elongation (Break)600%ASTM D638Flexural Modulus827MPaASTM D790Flexural Strength48.3MPaASTM D790Compressive Strength41.4MPaASTM D695ImpactNominal ValueUnitTest MethodNotchel Izol Impact37//mASTM D696Ods MPa, Unannealed98.9"CTest MethodOds MPa, Unannealed98.9"CSTM D495Outinuous Use Temperature166"CASTM D495Internal0.40W/m/KASTM D495Curtinuous Use Temperature1.5E-4cm/cm/°CASTM D495Internal Conductivity0.40W/m/KASTM D495Delectric Constant (I kHz)2.30W/mASTM D495ElectricalNominal ValueUnitTest MethodDelectric Constant (I kHz)2.30W/mASTM D495FlammabilityNominal ValueUnitTest MethodDelectric Constant (I kHz)2.30W/mMastFlammabilityNominal ValueUnitTest Method </th <th>Physical</th> <th>Nominal Value</th> <th>Unit</th> <th>Test Method</th>	Physical	Nominal Value	Unit	Test Method
HardnessNominal ValueUnitTest MethodRockwell Hardness (R-Scale)95	Specific Gravity	0.908	g/cm³	ASTM D792
Actwell Hardness (R-Scale)95ASTM D785MechanicalNominal ValueUnitTest MethodTensile Modulus1650MPaASTM D638Tensile Strength (Yield)35.9MPaASTM D638Tensile Longation (Break)600% MPaASTM D638Flexural Modulus600% MPaASTM D790Flexural Modulus827MPaASTM D790Compressive Strength48.3MPaASTM D790Compressive Strength11.4MPaASTM D790ImpactNominal ValueUnitTest MethodNotched Izod Impact37J/mASTM D256Deflection Temperature Under Load7CTerretASTM D6480.45 MPa, Unanneeled98.9*CTerret1.8 MPa, Unanneeled54.4*CTerret0.45 MPa, Unanneeled166*CASTM D4591CITE - Flow1.5E-4cm/cm/*CASTM D4591CITE - Flow1.5E-4Cm/cm/*CASTM D4591Deflectric Strength0.40W/m/KASTM D4591Dielectric Constant (1 Hz)24V/mmASTM D4591Dielectric Constant (1 Hz)2.30W/mASTM D459FlexmabilityNominal ValueUnitTest Method	Water Absorption (24 hr)	< 0.10	%	ASTM D570
MechanicalNominal ValueUnitTest MethodTensile Modulus1650MPaASTM D638Tensile Strength (Yield)35.9MPaASTM D638Tensile Elongation (Break)600%ASTM D638Flexural Modulus827MPaASTM D790Flexural Modulus827MPaASTM D790Compressive Strength48.3MPaASTM D790Compressive Strength48.3MPaASTM D695ImpactNominal ValueUnitTest MethodNotchel Izod Impact37J/mASTM D256Deflection Temperature Under Load7CTert Method0.45 MPa, Unannealed98.9*C*C1.8 MPa, Unannealed66*CASTM D4591Otting Temperature166*CASTM D595Thermal Conductivity0.40W/m/KASTM D696CITE - Flow1.5E-4cm/cm/*CASTM D696Thermal Conductivity0.40W/m/KASTM D190Dielectric Strength24KV/mmASTM D149Dielectric Constant (1 KH2)2.30*C*CFlammabilityNominal ValueUnitTest Method	Hardness	Nominal Value	Unit	Test Method
Tensile Modulus1650MPaASTM D638Tensile Strength (Yield)35.9MPaASTM D638Tensile Elongation (Break)600% PaASTM D638Flexural Modulus827MPaASTM D790Flexural Strength48.3MPaASTM D790Compressive Strength41.4MPaASTM D695ImpactNominal ValueUnitTest MethodNotched Izod Impact37J/mASTM D256Deflection Temperature Under Load7VinitTest Method0.45 MPa, Unannealed98.9°CVinit1.8 MPa, Unannealed54.4°CVinitContinuous Use Temperature166°CASTM D4591Iter Flow1.5E-4cm/cm/°CASTM D696Thermal Conductivity0.40W/m/KASTM D696Dielectric Strength2.30VinitTest MethodDielectric Constant (1 KHz)2.30UnitTest MethodFlemmabilityNominal ValueUnitTest Method	Rockwell Hardness (R-Scale)	95		ASTM D785
Tensile Strength (Yield)35.9MPaASTM D638Tensile Elongation (Break)600%ASTM D638Flexural Modulus827MPaASTM D790Flexural Strength48.3MPaASTM D790Compressive Strength11.4MPaASTM D695ImpactNominal ValueUnitTest MethodNotched Izod Impact37J/mASTM D256Deflection Temperature Under Load7VinitTest Method0.45 MPa, Unannealed98.9°CVinit1.8 MPa, Unannealed54.4°CVinitOutinuous Use Temperature166°CASTM D4591Internal Conductivity0.40W/m/KASTM D696Deflection Temperature1.5E-4cm/cm/°CASTM D4591Deflection Strength2.30VinitTest MethodDielectric Constant (1 KH2)2.30VinitASTM D190FlemmabilityNominal ValueUnitTest Method	Mechanical	Nominal Value	Unit	Test Method
Tensile Elongation (Break)600%ASTM D638Flexural Modulus827MPaASTM D790Flexural Strength48.3MPaASTM D790Compressive Strength41.4MPaASTM D695ImpactNominal ValueUnitTest MethodNotched Izod Impact37J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load98.9°CSTM D6480.45 MPa, Unannealed98.9°CSTM D6481.8 MPa, Unannealed54.4°CSTM D4591Continuous Use Temperature166°CASTM D4591CLTE - Flow1.5E-4cm/cm/°CASTM D696Thermal Conductivity0.40W/m/KASTM D149Delectric Strength24KV/mnASTM D149Dielectric Constant (1 Hz)2.30V/mTest MethodFlammabilityNominal ValueUnitTest Method	Tensile Modulus	1650	MPa	ASTM D638
Flexural Modulus827MPaASTM D790Flexural Modulus48.3MPaASTM D790Compressive Strength41.4MPaASTM D695ImpactNominal ValueUnitTest MethodNotched Izod Impact37J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under LoadNominal ValueUnitTest Method0.45 MPa, Unannealed98.9°C1.8 MPa, Unannealed54.4°CContinuous Use Temperature166°CASTM D4591ClE - Flow1.5E-4cm/cm/°CASTM D4591ClE - Flow0.40W/m/KASTM D4591Delectric Strength24kW/mamASTM D149Dielectric Constant (1 kHz)2.30ASTM D140FlammabilityNominal ValueUnitTest Method	Tensile Strength (Yield)	35.9	MPa	ASTM D638
Flexural Strength48.3MPaASTM D790Compressive Strength41.4MPaASTM D695ImpactNominal ValueUnitTest MethodNotched Izod Impact37J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under LoadVominal ValueUnitTest Method0.45 MPa, Unannealed98.9°C	Tensile Elongation (Break)	600	%	ASTM D638
Compressive Strength41.4MPaASTM D695ImpactNominal ValueUnitTest MethodNotched Izod Impact37J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load98.9°CASTM D6480.45 MPa, Unannealed98.9°CStM D6481.8 MPa, Unannealed54.4°CStM D4591Continuous Use Temperature82.2°CStM D4591CLTE - Flow1.5E-4cm/cm/°CASTM D4591CLTE - Flow0.40W/m/KASTM D696Delectric Strength0.40W/m/KASTM D4591Dielectric Constant (1 KHz)2.30Test MethodFlemabilityNominal ValueUnitTest Method	Flexural Modulus	827	MPa	ASTM D790
ImpactNominal ValueUnitTest MethodNotched Izod Impact37//mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under LoadVoltaTest Method0.45 MPa, Unannealed98.9°CSTM D6481.8 MPa, Unannealed54.4°CSTM D4591Continuous Use Temperature166°CASTM D4591CltE - Flow1.5E-4cm/cm/°CASTM D4591CltE - Flow0.40W/m/KASTM D696Delectric Strength24KV/mnASTM D149Dielectric Constant (1 kHz)2.30UnitTest MethodMominal ValueUnitTest MethodSTM D150	Flexural Strength	48.3	MPa	ASTM D790
Notched Izod Impact37J/mASTM D256ThermalNominal ValueUnitTest MethodDeflection Temperature Under Load%STM D6480.45 MPa, Unannealed98.9°C1.8 MPa, Unannealed54.4°CContinuous Use Temperature82.2°CMelting Temperature166°C andASTM D4591CLTE - Flow1.5E-4cm/cm/°CASTM D696Thermal Conductivity0.40W/m/KASTM C177ElectricalNominal ValueUnitTest MethodDielectric Constant (1 kHz)2.30VinitASTM D199FlammabilityNominal ValueUnitTest Method	Compressive Strength	41.4	MPa	ASTM D695
ThermalNominal ValueUnitTest MethodDeflection Temperature Under LoadASTM D6480.45 MPa, Unannealed98.9°C1.8 MPa, Unannealed54.4°CContinuous Use Temperature82.2°CMelting Temperature166°C an/cm/°CCLTE - Flow1.5E-4cm/cm/°CThermal Conductivity0.40W/m/KElectricalNominal ValueUnitDielectric Strength2.30CurtElemabilityNominal ValueUnitElemabilityNominal ValueUnitElemability1.30CurtElemabilityNominal ValueUnitElemabilityNominal ValueNominal ValueElemabilityNominal ValueNominal ValueElemability	Impact	Nominal Value	Unit	Test Method
ASTM D648Deflection Temperature Under Load98.9°C0.45 MPa, Unannealed98.9°C1.8 MPa, Unannealed54.4°CContinuous Use Temperature82.2°CMelting Temperature166°CASTM D4591CLTE - Flow1.5E-4cm/cm/°CASTM D696Thermal Conductivity0.40W/m/KASTM C177ElectricalNominal ValueUnitTest MethodDielectric Strength2.30V/mmASTM D150FlammabilityNominal ValueUnitTest Method	Notched Izod Impact	37	J/m	ASTM D256
0.45 MPa, Unannealed98.9°C1.8 MPa, Unannealed54.4°CContinuous Use Temperature82.2°CMelting Temperature166°CCLTE - Flow1.5E-4cm/cm/°CThermal Conductivity0.40W/m/KElectricalNominal ValueUnitDielectric Strength2.30K/mmElamabilityNominal ValueUnitElamabilityNominal ValueUnitElamabilityNominal ValueMonital ValueElamabilityNominal ValueUnitElamabilityNominal ValueNominal Value	Thermal	Nominal Value	Unit	Test Method
1.8 MPa, Unannealed54.4°CContinuous Use Temperature82.2°CMelting Temperature166°CASTM D4591CLTE - Flow1.5E-4cm/cm/°CASTM D696Thermal Conductivity0.40W/m/KASTM C177ElectricalNominal ValueUnitTest MethodDielectric Strength2.4KV/mmASTM D149Dielectric Constant (1 KHz)2.30UnitTest MethodFlammabilityWoninal ValueUnitTest Method	Deflection Temperature Under Load			ASTM D648
Continuous Use Temperature82.2°CMelting Temperature166°CASTM D4591CLTE - Flow1.5E-4cm/cm°CASTM D696Thermal Conductivity0.40W/m/KASTM C177ElectricalNominal ValueUnitTest MethodDielectric Strength24kV/mmASTM D149Dielectric Constant (1 kHz)2.30Vinit Constant (1 kHz)Test MethodHammabilityNominal ValueUnitTest Method	0.45 MPa, Unannealed	98.9	°C	
Melting Temperature166°CASTM D4591CLTE - Flow1.5E-4cm/cm/°CASTM D696Thermal Conductivity0.40W/m/KASTM C177ElectricalNominal ValueUnitTest MethodDielectric Strength24kV/mmASTM D149Dielectric Constant (1 kHz)2.30STM D150FlammabilityNominal ValueUnitTest Method	1.8 MPa, Unannealed	54.4	°C	
CLTE - Flow1.5E-4cm/cm/°CASTM D696Thermal Conductivity0.40W/m/KASTM C177ElectricalNominal ValueUnitTest MethodDielectric Strength24KV/mmASTM D149Dielectric Constant (1 kHz)2.30STM D150FlammabilityNominal ValueUnitTest Method	Continuous Use Temperature	82.2	°C	
Thermal Conductivity0.40W/m/KASTM C177ElectricalNominal ValueUnitTest MethodDielectric Strength24kV/mmASTM D149Dielectric Constant (1 kHz)2.30ASTM D150FlammabilityNominal ValueUnitTest Method	Melting Temperature	166	°C	ASTM D4591
ElectricalNominal ValueUnitTest MethodDielectric Strength24kV/mmASTM D149Dielectric Constant (1 kHz)2.30ASTM D150FlammabilityNominal ValueUnitTest Method	CLTE - Flow	1.5E-4	cm/cm/°C	ASTM D696
Dielectric Strength 24 kV/mm ASTM D149 Dielectric Constant (1 kHz) 2.30 ASTM D150 Flammability Nominal Value Unit Test Method	Thermal Conductivity	0.40	W/m/K	ASTM C177
Dielectric Constant (1 kHz) 2.30 ASTM D150 Flammability Nominal Value Unit Test Method	Electrical	Nominal Value	Unit	Test Method
Flammability Nominal Value Unit Test Method	Dielectric Strength	24	kV/mm	ASTM D149
	Dielectric Constant (1 kHz)	2.30		ASTM D150
Flame Rating HB UL 94	Flammability	Nominal Value	Unit	Test Method
	Flame Rating	НВ		UL 94

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