

LNPTM LUBRICOMPTM COMPOUND ECL36

ECL-4036 REGION EUROPE

DESCRIPTION

LNP LUBRICOMP ECL36 compound is based on Polyetherimide (PEI) resin containing 30% carbon fiber, 15% PTFE. Added features of this grade include: Wear Resistant, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, Carbon fiber filled, High stiffness/Strength, High temperature resistance
Fillers	Carbon Fiber, PTFE
Polymer Types	Polyetherimide (PEI)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL (1)			
Tensile Stress, break, 5 mm/min	160	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.2	%	ISO 527
Tensile Modulus, 1 mm/min	21600	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	256	MPa	ISO 178
Flexural Strain, break, 2 mm/min	1.6	%	ISO 178
Flexural Modulus, 2 mm/min	18500	MPa	ISO 178
Flexural Strain, break, 2 mm/min, 80°C	1.5	%	ISO 178
Flexural Strain, break, 2 mm/min, 120°C	1.4	%	ISO 178
Flexural Strain, break, 2 mm/min, 150°C	1.6	%	ISO 178
Flexural Strain, break, 2 mm/min, 200°C	1	%	ISO 178
Flexural Stress, yield, 2 mm/min, 80°C	214	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 120°C	182	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 150°C	145	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 200°C	91	MPa	ISO 178
Flexural Modulus, 2 mm/min, 80°C	17900	MPa	ISO 178
Flexural Modulus, 2 mm/min, 120°C	17400	MPa	ISO 178
Flexural Modulus, 2 mm/min, 150°C	16400	MPa	ISO 178
Flexural Modulus, 2 mm/min, 200°C	15300	MPa	ISO 178



PROPERTIES TYPICAL VALUES UNITS TEST METHODS MPACT ¹¹ 150 mpact, notiched 80°10°3 -40°C 18 M/m² SO 180/1A Lood Impact, notiched 80°10°4 -23°C 18 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 5 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 5 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 5 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 5 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 5 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 5 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 5 M/m² SO 180/1U Lood Impact, unnotched 80°10°4 +23°C 8 M/m² SO 180/1U Lood Grind Row 1 M/m² SO 1389/1 Modes Controll Cit, 23°C to 60°C, flow 0 2.5 % SO 294 Modes Controll Modes Controll Modes Controll Modes Controll Modes Controll Modes Controll				
tool (mpact, unnotched 80°10°3-40°C 7 kl/m² 50 180/10 tool (mpact, unnotched 80°10°4-23°C 52 kl/m² 50 180/10 tool (mpact, unnotched 80°10°4-23°C 5 kl/m² 50 180/10 tool (mpact, unnotched 80°10°4-23°C 5 kl/m² 50 180/10 THERMAL************************************	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izonal impact, unnotched 80°10°4+23°C 18 ki/m² 150 180/110 Izod impact, unnotched 80°10°4+23°C 25 kl/m² 150 180/110 Izod impact, unnotched 80°10°4+23°C 25 kl/m² 150 180/110 Izonal impact, unnotched 80°10°4+23°C 25 kl/m² 150 180/110 TEREMAL************************************	IMPACT (1)			
izod Impact, unnotched 80°10°4 40°C 25 ki/m² 150 (10) tzod Impact, notched 80°10°4 423°C 5 ki/m² 150 (10) THERMAL "I V V Specific Reta 1890 J/kg.A ASIM E1269 CTE, 23°C to 60°C, filow 9.606 1,°°C 50 11359-2 CTE, 23°C to 60°C, filow 2.860 1,°°C 50 11359-2 Thermal Conductivity 0.30 W/m² 50 11359-2 Thermal Conductivity 0.25 % SO 294 Mold Shrinkage, flow, 24 hrs ⁽²⁾ 0.25 % SO 294 Wear Factor Washer 1.0 -0.4 % SO 294 Wear Factor Washer 1.0 -0.4 % SO 294 Static COF 0.8 2.0 9 Static COF 0.48 2.0 STM D3702 Moldfielt: Manual of	Izod Impact, notched 80*10*3 -40°C	7	kJ/m²	ISO 180/1A
Ize of Impact, notched 80°10°4 +23°C 5 I/Impact Impact 100°10°10°10°10°10°10°10°10°10°10°10°10°	Izod Impact, unnotched 80*10*4 +23°C	18	kJ/m²	ISO 180/1U
THERMAL (**) Specific Heat 1890 // Leg ASTM E1269 CTE, 23°C to 60°C, flow 9.606 1/°C 80 11359-2 CTE, 23°C to 60°C, flow 2.8e-05 1/°C 80 11359-2 Thermal Conductivity 3.3 Wim*A ASTM D5930 PHYSICAL************************************	Izod Impact, unnotched 80*10*4 -40°C	25	kJ/m²	ISO 180/1U
Specific Heat1890JkykASTM E1696CTE, 23°C to 60°C, flow9.601°C05 13592CTE, 23°C to 60°C, kilow28.601°C05 13592Thermal Conductivity03WhaASTM 503PHYSICAL***Will Shrinkage, flow, 24 hrs ⁽²⁾ 0.25\$50.294Mold Shrinkage, flow, 24 hrs ⁽²⁾ 0.1-0.4\$0.25Most Shrinkage, xflow, 24 hrs ⁽²⁾ 0.1-0.4\$0.25More Actor Washer1.0-0.40.1-0.1 in/s-min/fil-bir0.57 M30702 Modifled: ManualDynamic COF0.39-0.57 M30702 Modifled: ManualData Colspan="3">State COF0.480.0-0.1 in/s-min/fil-bir0.50 M30702 Modifled: ManualData Colspan="3">Data Colspan="3">Mater Absorption (23°C JoSn Rh)0.20.20.50 M30702 Modifled: ManualMolture Absorption (23°C JoSn Rh)0.20.20.50 M30702 Modifled: ManualMelt Coll Manual Absorption (23°C JoSn Rh)0.20.50 M30702 Modifled: ManualMelt Coll Manual Absorption (23°C JoSn Rh)0.20.50 M30702 Modifled: ManualMelt Coll Manual Absorption (23°C JoSn Rh)0.20.50 M30702 Modifled: ManualMelt Coll Manual Absorption (23°C JoSn Rh)0.20.50 M30702 M0difled: ManualMelt Coll Manual Absorption (23°C JoSn Rh)0.50 M30702 M0difled: Manual0.50 M30702 M0difled: ManualMolt Coll Manual Absorption (23°C JoSn Rh)0.50 M30702 M0difled: Manual0.50 M30702 M0difled: ManualMolt Coll Manual Absorption (23°C JoSn Rh)0.50 M30702 M0difled: Manual<	Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
CTE, 23°C to 60°C, flow 9.606 1,°C ISO 11359-2 CTE, 23°C to 60°C, flow 2.805 1,°C 60 11359-2 Thermal Conductivity 0.33 W/m K ASTM D5904 PWYSICAL ⁽¹⁾ V Wold Shrinkage, flow, 24 hrs ⁽²⁾ 0.25 \$ 150 294 Mold Shrinkage, xlow, 24 hrs ⁽²⁾ 0.1-0.4 \$ 150 294 Wear Factor Washer 1.0-0.4 \$ 150 294 Wear Factor Washer 3.1 10-1.0 in/5-min/t-lb-in ASTM D3702 Modified: Manual Dynamic COF 0.48 2 ASTM D3702 Modified: Manual Static COF 0.49 g/cm³ ISO 1133 Water Absorption (23°C/24hrs) 0.2 8 50 62-1 Mel Volume Rate, MNR at 345°C/10.0 kg 2.1 8 10-13 10-13 Water Absorption (23°C/24hrs) 1.601-1.8 in 9 20-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 10-13 <td>THERMAL (1)</td> <td></td> <td></td> <td></td>	THERMAL (1)			
CFC, 23°C to 60°C, xifow 2.8E 50 1°C 50 11559-2 Thermal Conductivity 0.3 W/m K ASTM D5930 PMSICAL ⁽¹⁾ V V CM 150 150 250 250 250 250 250 250 250 250 250 2	Specific Heat	1890	J/kg-K	ASTM E1269
Physical (¹¹) Win-Ka ASTR D5930 Physical (¹¹) Use of thirdinge, flow, 24 hrs (²¹) 0.25 \$ 50.294 Mold Shrinkage, flow, 24 hrs (²¹) 0.1 − 0.4 \$ 50.294 Wear Ector Washer 31 0.1 − 0.4 \$ 60.70 ± 0.0 ASTM D3702 Modified; Manual Dynamic COF 0.39 - ASTM D3702 Modified; Manual 3 Static COF 0.49 g/cm³ ASTM D3702 Modified; Manual Pensity 1.49 g/cm³ 80.21 3 Water Absorption (23°C / 24hrs) 0.2 3 3 60.21 3 Moltsure Absorption (23°C / 250 KRH) 0.2 3 60.21 3 60.21 4 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21 60.21<	CTE, 23°C to 60°C, flow	9.E-06	1/°C	ISO 11359-2
PHYSICAL. ¹¹ Mold Shrinkage, flow, 24 hrs ⁽²⁾ 0.25 % 50.294 Mold Shrinkage, xflow, 24 hrs ⁽²⁾ 0.1–0.4 % 50.294 Wear Factor Washer 31 10~10 in A-5 min / ft-lb-hr ATM D3702 Modified: Manual Dynamic COF 0.39 - ASTM D3702 Modified: Manual Besity 1.49 g/cm³ 150 183 Water Absorption (23°C/24hrs) 0.32 % 150 62 Moisture Absorption (23°C/25hrs) 2.1 % 150 62 Motter Absorption (23°C/24hrs) 2.2 % 150 62 Motter Absorption (23°C/24hrs) 0.2 % 150 62 Motter Absorption (23°C/24hrs) 2.1 % 150 62 Motter Absorption (23°C/24hrs) 1.2 1.2 1.2 Motter Absorption (23°C/24hrs) 1.2 1.2 1.2	CTE, 23°C to 60°C, xflow	2.8E-05	1/°C	ISO 11359-2
Mold Shrinkage, flow, 24 hrs (2)0.25%50.294Mold Shrinkage, xflow, 24 hrs (2)0.1–0.4%50.294Wear Factor Washer3.110~10 in 5-min/ft-lbrASTM D3702 Modified: ManualDynamic COF0.39-ASTM D3702 Modified: ManualEact COF0.48-10.00Water Absorption (23°C/24hrs)1.49g/cm³10.1133Moisture Absorption (23°C/25hrs)0.23.010.133Melt Volume Rate, MVR at 345°C/10.0kg4-610.31710.113Better Kill1.51.51.5Dyrigh Temperature1.52.52.5Drying Time4-61.52.5Maximum Moisture Content9.02.52.5Maximum Moisture Content3.02.52.5Mer-roon 1 Temperature3.02.52.5Mer-roon 2 Temperature3.02.52.5Middle-zone 2 Temperature3.02.52.5Moisture Eatingerature3.02.52.5Moisture Eatingerature3.02.52.5Moisture Eatingerature3.02.52.5Moisture Eatingerature3.02.02.5Moisture Eatingerature3.03.02.5Moisture Eatingerature3.03.03.0Moisture Eatingerature3.03.03.0Moisture Eatingerature3.03.03.0Moisture Eatingerature3.03.03.0Moisture Eating Eating Eating Eating	Thermal Conductivity	0.33	W/m-K	ASTM D5930
Mold Shrinkage, xflow, 24 hrs ^[2] 0.1 - 0.4 d% 10.1 0.1 in.75 - min/ft-libritXFM D3702 Modified: ManualWear Factor Washer3.31.0 - 1.0 in.75 - min/ft-libritATM D3702 Modified: ManualStatic COF0.48- 2ATM D3702 Modified: ManualDensity1.499/cm²ISO 183Water Absorption (23°C / 24hrs)0.22% 2150 C2Molsture Absorption (23°C / 50% RH)0.21% 2150 C2Met Volume Rate, MVR at 345°C/1.0 kg1.2 + 0.2mil 10 min150 C3ELETRICAL III1.5 + 0.1 + 1.5 + 0.62ATM D257Dying Temperature1.5 + 0.1 + 1.5 + 0.62ATM D257Dying Temperature1.5 + 0.22ATM D257Maximum Moisture Content0.02%* 1.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 + 0.2 +	PHYSICAL (1)			
Wear Factor Washer3110~10 in√5 min/ft-lb-frASTM D3702 Modified: ManualDynamic COF0.39-ASTM D3702 Modified: ManualStatic COF0.48-ASTM D3702 Modified: ManualDensity1.49g/cm³SO 1183Water Absorption (23°C/24hrs)0.32%SO 62-1Moisture Absorption (23°C/50% RH)0.21%SO 62-1Met Volume Rate, MVR at 345°C/10.0 kg4-6m²/10 minSO 1133ELECTRICAL (**)Surface Resistivity1.501 − 1.5406QASTM D257Drying Temperature150CDrying Temperature4-6Hrs-Maximum Moisture Content0.02%-Melt Temperature30-375C-Rear - Zone 1 Temperature36-375C-Middle - Zone 2 Temperature36-375C-Moid Temperature36-375C-Moid Temperature40-180C-Moid Temperature36-375C-Moid Temperature36-375C-Moid Temperature40-180C-Moid Temperature36-370MPa-Moid Temperature36-370MPaMoid Temperature36-370MPaMoid Temperature36-370MPaMoid Temperature36-370MPa	Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.25	%	ISO 294
Dynamic COF 0.39 - o. ASTM D3702 Modified: Manual Static COF 0.48 - o. ASTM D3702 Modified: Manual Density 1.49 g/cm³ ISO 1183 Water Absorption (23°C / 24hrs) 0.32 % ISO 62-1 Moisture Absorption (23°C / 50% RH) 0.21 % ISO 62 Melt Volume Rate, MVR at 345°C / 10.0 kg 4-6 m³/l omin ISO 1133 ELECTRICAL (*) ** X ASTM D257 State Resistivity 1.50 1.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5 ± 0.5	Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.1 – 0.4	%	ISO 294
Static COF 0.48 - O. Pority ASTM D3702 Modified: Manual Density 1.49 g/cm³ 100 62-1 Water Absorption (23°C/24hrs) 0.21 % 100 62-1 Melt Volume Rate, MVR at 345°C/10.0 kg 4-6 m²/10 min 100 133 ELECTRICAL (¹) 2 ASTM D257 Surface Resistivity 1.50 1.50 2.50 ASTM D257 Drying Temperature 150 °C 2 Maximum Moisture Content 9.02 8 1.50 2.50 1.50 2.50 Melt Temperature 30-375 °C 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.	Wear Factor Washer	31	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Desity1.49g/cm³ISO 1183Water Absorption, (23°C/24hrs)0.32%50 62-1Moisture Absorption (23°C / 50%RH)0.21%50 62Melt Volume Rate, MVR at 345°C/10.0 kg4-6m³/10 minISO 1133ELECTRICAL (1)Usurace Resistivity1.E+01 - 1.E+06QASTM D257Drying TemperatureDrying Temperature150CYMaximum Moisture Content0.02%YMelt Temperature30-375CYMiddle-Zone 2 Temperature355-355CYMoisture Emperature360-370CYMoisture Emperature365-375CYMotor Emperature355-355CYMotor Emperature365-375CYMotor Emperature365-375CYMotor Emperature360-370CYMotor Emperature360-375CYMotor Emperature360-375CYMotor Emperature360-375CYMotor Emperature360-375CYMotor Emperature360-375CYMotor Emperature360-370M²Motor Emperature360-370M²Motor Emperature360-370M²Motor Emperature360-370M²Motor Emperature360-370M²Motor Emperature360-370M²Motor Emperature360-370M² <t< td=""><td>Dynamic COF</td><td>0.39</td><td></td><td>ASTM D3702 Modified: Manual</td></t<>	Dynamic COF	0.39		ASTM D3702 Modified: Manual
Water Absorption, (23°C/24hrs) 0.32 % 50 62-1 Moisture Absorption (23°C / 50% RH) 0.21 % 50 62 Melt Volume Rate, MVR at 345°C/10.0 kg 4 − 6 cm²/10 min 50 1133 ELECTRICAL (¹) T T XSTM D257 Surface Resistivity 1.E+01 − 1.E+06 Ω ASTM D257 INJECTION MOLDING (³) T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T T	Static COF	0.48		ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)0.21%150 62Melt Volume Rate, MVR at 345°C / 10.0 kg4 - 6cm²/10 min150 1133ELECTRICAL (¹)TTTSurface Resistivity1.E+01 - 1.E+06QASTM D257INJECTION MOLDING (³)Drying Temperature150°CTDrying Time4 - 6HrisTMaximum Moisture Content0.02%TRear - Zone 1 Temperature360 - 375°CTRear - Zone 1 Temperature355 - 365°CTMiddle - Zone 2 Temperature360 - 370°CTNoze 1 Temperature365 - 375°CTNoze 1 Temperature365 - 375°CTMold Temperature365 - 375°CTMold Temperature140 - 180°CTBack Pressure0.3 - 0.7MPaTStew speed (Circumferential speed)0.2 - 0.3m/sT	Density	1.49	g/cm³	ISO 1183
Melt Volume Rate, MVR at 345°C/10.0 kg LECTRICAL (1) Surface Resistivity Interction MolDing (3) Drying Temperature Drying Time 4 - 6 4 - 6 Hrs Maximum Moisture Content Melt Temperature Melt Temperature 360 - 375 C Rear - Zone 1 Temperature 360 - 375 C Middle - Zone 2 Temperature 365 - 375 C Nozzle Temperature 365 - 375 C Mold Temperature Mold Temperature 365 - 375 C C Mold Temperature 365 - 375 C C Mold Temperature 365 - 375 C C Mold Temperature 365 - 375 C Mold Temperature 365 - 375 C Mold Temperature Mold Temperature 365 - 375 C Mold Temperature Mold	Water Absorption, (23°C/24hrs)	0.32	%	ISO 62-1
ELECTRICAL (1) Surface Resistivity Injury Temperature Maximum Moisture Content Melt Temperature Moidle - Zone a Temperature Mo	Moisture Absorption (23°C / 50% RH)	0.21	%	ISO 62
Surface Resistivity NUECTION MOLDING Drying Temperature 150 4-6 Mrs Maximum Moisture Content Melt Temperature 360-375 C Rear-Zone 1 Temperature 360-375 C Middle-Zone 2 Temperature 360-375 C Nozzle Temperature 360-375 Nozzle Temperature 360-3	Melt Volume Rate, MVR at 345°C/10.0 kg	4 – 6	cm³/10 min	ISO 1133
INJECTION MOLDING (3) Prying Temperature 150 Prying Time 160 Maximum Moisture Content 160 Melt Temperature 160 Melt Temperature 170 Melt Temperature 170 Modile - Zone 1 Temperature 170 Mozile - Zone 2 Temperature 170 Mozile Temperature 1	ELECTRICAL (1)			
Drying Temperature 150 ℃ Drying Time 4 – 6 Hrs Maximum Moisture Content 0.02 % Melt Temperature 360 – 375 ℃ Rear - Zone 1 Temperature 355 – 365 ℃ Middle - Zone 2 Temperature 360 – 370 ℃ Front - Zone 3 Temperature 365 – 375 ℃ Mozzle Temperature 140 – 180 ℃ Mold Temperature 140 – 180 ℃ Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Surface Resistivity	1.E+01 – 1.E+06	Ω	ASTM D257
Drying Time 4-6 Hrs Maximum Moisture Content 0.02 % Melt Temperature 355-355 °C Middle - Zone 2 Temperature 365-375 °C Mozzle Temperature 365-375 °C Nozzle Temperature 365-375 °C Mold	INJECTION MOLDING (3)			
Maximum Moisture Content 0.02 % Melt Temperature 360 – 375 °C Rear - Zone 1 Temperature 355 – 365 °C Middle - Zone 2 Temperature 360 – 370 °C Front - Zone 3 Temperature 365 – 375 °C Nozzle Temperature 365 – 375 °C Mold Temperature 140 – 180 °C Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Drying Temperature	150	°C	
Melt Temperature 360 – 375 °C Rear - Zone 1 Temperature 355 – 365 °C Middle - Zone 2 Temperature 360 – 370 °C Front - Zone 3 Temperature 365 – 375 °C Nozzle Temperature 365 – 375 °C Mold Temperature 140 – 180 °C Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Drying Time	4 – 6	Hrs	
Rear - Zone 1 Temperature 355 – 365 °C Middle - Zone 2 Temperature 360 – 370 °C Front - Zone 3 Temperature 365 – 375 °C Nozzle Temperature 365 – 375 °C Mold Temperature 140 – 180 °C Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Maximum Moisture Content	0.02	%	
Middle - Zone 2 Temperature 360 – 370 °C Front - Zone 3 Temperature 365 – 375 °C Nozzle Temperature 365 – 375 °C Mold Temperature 140 – 180 °C Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Melt Temperature	360 – 375	°C	
Front - Zone 3 Temperature 365 – 375 °C Nozzle Temperature 365 – 375 °C Mold Temperature 140 – 180 °C Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Rear - Zone 1 Temperature	355 – 365	°C	
Nozzle Temperature 365 – 375 °C Mold Temperature 140 – 180 °C Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Middle - Zone 2 Temperature	360 – 370	°C	
Mold Temperature 140 – 180 °C Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Front - Zone 3 Temperature	365 – 375	°C	
Back Pressure 0.3 – 0.7 MPa Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Nozzle Temperature	365 – 375	°C	
Screw speed (Circumferential speed) 0.2 – 0.3 m/s	Mold Temperature	140 – 180	°C	
	Back Pressure	0.3 – 0.7	MPa	
Vent Depth 0.025 – 0.076 mm	Screw speed (Circumferential speed)	0.2 – 0.3	m/s	
	Vent Depth	0.025 - 0.076	mm	

⁽¹⁾ The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

⁽²⁾ Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

⁽³⁾ Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.



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