

LNPTM THERMOCOMPTM COMPOUND ZKCODXXD

DESCRIPTION

LNP THERMOCOMP ZKCODXXD compound is based on Polyphenylene Ether / Polystyrene (PPE/PS) blend containing minerals and impact modifier. Added features of this grade include: High Dielectric Constant (Dk), Extremely Low Dissipation Factor (Df), and Good Thermal Performance

GENERAL INFORMATION	
Features	Dielectrics, Low Moisture Absorption, Dimensional stability, No PFAS intentionally added
Fillers	Mineral
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Electrical and Electronics	Wireless Communication

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL (1)			
Tensile Stress, yld, Type I, 5 mm/min	46	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	44	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	3.7	%	ASTM D638
Tensile Modulus, 5 mm/min	2400	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	85	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2190	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	46	MPa	ISO 527
Tensile Stress, break, 5 mm/min	43	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	4	%	ISO 527
Tensile Modulus, 1 mm/min	2380	MPa	ISO 527
Flexural Strength, 2 mm/min	82	MPa	ISO 178
Flexural Modulus, 2 mm/min	2370	MPa	ISO 178
IMPACT (1)			
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Izod Impact, notched, -30°C	51	J/m	ASTM D256
Izod Impact, unnotched, 23°C	475	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	6	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	4.9	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	4.2	kJ/m²	ISO 179/1eA



PROPERTIES TYPICAL VALUES UNITS TEST METHODS Charpy 23°C, Unnotch Edgew 80°10°4 sp=62mm 36 kl/m² SO 179/1eul HDT, 182 MPs, 32 mm, unamnealed 148 °C ASTM D648 HDT, 18.2 MPs, 32 mm, unamnealed 130 °C ASTM D648 HDT/M, 1.8 MPs Flatw 80°10°4 sp=64mm 130 °C 150 75/8* HDT/M, 1.8 MPs Flatw 80°10°4 sp=64mm 130 °C 150 75/8* CTE V V 557 76/8* CTE V 557 6/8* -40°C to 90°C, 400 6.385 11°C ASTM E831 -40°C to 90°C, 400 6.485 11°C ASTM E831 -40°C to 90°C, 100 6.485 11°C ASTM E831 -40°C to 90°C, 100 6.485 91°C MSTM E831 -40°C to 40°C, 40°C 40°C 40°C 40°C <				
THERNAL (¹⁾ THERNAL (¹⁾ C ASTAM D648 HOT, 1.82 MPa, 3.2 mm, unannealed 149 °C ASTAM D648 HOTD, 18.2 MPa, 3.2 mm, unannealed 130 °C 150 75 J8 HOTD, 18.2 MPa Flatw 80*10*4 spe64mm 130 °C 150 75 J8 HOT, 1.8 MPa Flatw 80*10*4 spe64mm 130 °C 150 75 J8 HOTC to 40°C, flow 3.85 S 1/°C ASTAM E831 40°C to 40°C, flow 6.76 S 1/°C ASTAM E831 40°C to 40°C, flow 6.76 S 1/°C ASTAM E831 40°C to 90°C, flow 6.76 S 1/°C ASTAM E831 40°C to 90°C, flow 6.76 S 1/°C ASTAM E831 40°C to 90°C, flow 5.0 ASTAM E831 40°C to 90°C, flow 4.0 ASTAM E831 40°C to 90°C, flow 5.0 ASTAM E83	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HOT, 0.45 MPa, 3.2 mm, unannealed 184 °C ASTM D648 HOT, 1.82 MPa, 3.2 mm, unannealed 130 °C ASTM D648 HOT, 18.4 MPa Flatw 80°10°4 spe-64mm 130 °C 150 75 /mt HOTJAI, 1.8 MPa Flatw 80°10°4 spe-64mm 636 TV STM STM F681 CTE 40°C to 40°C, flow 636 1,°C ASTM E831 ASTM E831 40°C to 40°C, flow 646 1,°C ASTM E831 ASTM E831 40°C to 40°C, flow 646 1,°C ASTM E831 ASTM E831 40°C to 40°C, flow 646 1,°C ASTM E831 ASTM E831 40°C to 90°C, flow 646 1,°C ASTM E831 ASTM E831 40°C to 90°C, flow 50°C ASTM E831 ASTM E831 40°C to 90°C, flow 50°C ASTM E831 ASTM E831 40°C to 90°C, flow 50°C ASTM E831 ASTM E831 40°C to 90°C, flow 50°C ASTM E831 ASTM E831 40°C to 90°C, flow 50°C ASTM E831 ASTM E831 40°C	Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	36	kJ/m²	ISO 179/1eU
HDT, 18.2 MPa, 3.2mm, unannealed 130 °C ASTM D648 HDT, 18.1 MPa Flatw 80°10°4 sp=64mm 130 °C 150 75 /15 HDT, 18.1 MPa Flatw 80°10°4 sp=64mm 130 °C 150 75 /15 CTC T T C ASTM E831 40°C to 40°C, flow 6.55 11°C ASTM E831 40°C to 90°C, flow 6.95 10°C ASTM E831 40°C to 90°C, flow 2.00 ASTM E831 ASTM E831 40°C to 90°C, flow 2.00 ASTM E831 ASTM E831 40°C to 90°C, flow 2.00 ASTM E831 ASTM E831 40°C to 90°C, flow 2.00 ASTM E831 ASTM E831 40°C to 90°C, flow 2.00 ASTM E831 ASTM E831 40°C to 90°C, flow 2.00 ASTM E831 ASTM E831 40°C to 90°C, flow 2.00 ASTM	THERMAL (1)			
HDT/βf, 0.45 MPa Flattw 80°10'4 sp=64mm 147 °C SO 75/β1 HDT/βf, 1.8 MPa Flattw 80°10'4 sp=64mm 130 °C SO 75/β1 CTE CT CT CT 40°C to 40°C, flow 6.35 1,°C ASTM 831 40°C to 90°C, flow 6.45 1,°C ASTM 831 40°C to 90°C, flow 6.95 4.5 ASTM 831 40°C to 90°C, flow 6.95 ASTM 831 ASTM 831 40°C to 90°C, flow 6.95 ASTM 831 ASTM 831 40°C to 90°C, flow 6.0 ASTM 831 ASTM 831 40°C to 90°C, flow 6.0 ASTM 831 ASTM 831 40°C to 90°C, flow 6.0 ASTM 1028 ASTM 1028 40°C flow flow 6.0 Co 62-1 ASTM 1028 40°C flow flow 7.0 9.0 ASTM 1028 ASTM 1028	HDT, 0.45 MPa, 3.2 mm, unannealed	148	°C	ASTM D648
HDT/A, 1.8 MPa Fatuw 80°10'4 sp=64mm 100 °C D575/HA CTE CTC CTC CTC CTC CTC CTC ASTM E831 -α0°C to 40°C, flow 6.75-5 1 °C ASTM E831 -α0°C to 90°C, flow 6.46-5 1 °C ASTM E831 -α0°C to 90°C, flow 6.46-5 1 °C ASTM E831 PWISCAL ⁽¹⁾ V ASTM E831 CTC PWISCAL ⁽¹⁾ ASTM E831 CTC ASTM E831 PWISCAL ⁽¹⁾ ASTM E831 CTC ASTM E831 PWISCAL ⁽¹⁾ ASTM E831 ASTM E831 ASTM E831 PWISCAL ⁽¹⁾ ASTM D123 ASTM D123 ASTM D123 A	HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D648
CTE CTE CTE CTP ASTME831	HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	147	°C	ISO 75/Bf
40°C to 40°C, flow 6.85 f. 1,°C ASTM E831 40°C to 40°C, flow 6.75 f. 1,°C ASTM E831 40°C to 90°C, flow 6.85 f. 1,°C ASTM E831 40°C to 90°C, flow 6.85 f. 1,°C ASTM E831 40°C to 90°C, flow 6.85 f. 1,°C ASTM E831 POPER STATE OF THE BEST AND TO PS Mod Strinkage, flow (23°C/5 NRH/24hrs) 0.00 3 0.00 3 0.00 3 0.00 3 0.00 1.00 0.0	HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	130	°C	ISO 75/Af
40°C to 40°C, flow 6.7E-5 1,°C ASTM E831 40°C to 90°C, flow 6.4E-5 1,°C ASTM E831 40°C to 90°C, flow 6.9E-5 1,°C ASTM E831 40°C to 90°C, flow 5.9E-6 1,°C ASTM E831 PHYSICAL*** Specific Group 40°C 40°C ASTM D792 Water Absorption, (23°C/24hrs) 0.07 % 50°C 24 Molts Water Absorption, (23°C/250K RH/24hrs) 0.03 % 50°C 24 Melt Polour Rate, 230°C/5.0 Kgf 4.5 910 min ASTM D128 Melt Volume Rate, MVR at 320°C/5.0 kgf 4.2 30°C 30°C Mold Shrinkage, flow (3) 4.2 4.0 30°C 30°C Mold Shrinkage, flow (6) 7.0 9 30°C 30°C 30°C 40°C Biologiation Factor, 1.1 GHz 5.4 4.0 40°C 30°C 40°C	CTE			
40°C to 90°C, flow 6.4ES 1,°C ASTM E831 40°C to 90°C, flow 6.9ES 1,°C ASTM E831 PHYSICAL ¹⁰ FORGER (Arg) Specific Gravity 2.07 S ASTM D792 Moster Absorption, (23°C/24Hrs) 0.07 \$ S 6.0 €21 Molt Sture Absorption, (23°C/50K RH/24hrs) 0.03 \$ 100 €24 Melt Flow Rate, 320°C/5.0 kgf 8.5 9/10 min ASTM D1238 Melt Volume Rate, MW ast 20°C/5.0 kg 4.3 20/10 min SSTM D1238 Mold Shrinkage, xflow ⁽²⁾ 0.7-0.9 % ASIM Cmethod Mold Shrinkage, xflow ⁽²⁾ 7-0.9 % ASIM Cmethod Displation Factor, 1.1 GHz 7-0.9 ASIM Cmethod ASIM Cmethod Dissipation Factor, 1.9 GHz 7-0.0 2.0 ASIM Cmethod Dissipation Factor, 1.9 GHz 7-0.0 ASIM Cmethod Dissipation Factor, 5 GHz 9.0 ASIM Cmethod Displayer Foregrature 9-0 ASIM Cmethod Physing Femerature	-40°C to 40°C, flow	6.3E-5	1/°C	ASTM E831
40°C to 90°C, flow 6,85E 10°C ASM E831 PNYSICAL (¹) V <td>-40°C to 40°C, xflow</td> <td>6.7E-5</td> <td>1/°C</td> <td>ASTM E831</td>	-40°C to 40°C, xflow	6.7E-5	1/°C	ASTM E831
Physical C ¹¹ Specific Gravity 2.07 4.0 ASTM 0792 Water Absorption, (23°C/24hrs) 0.07 \$ 150 62-1 Melt Flow Rate, 320°C/5.0 KgH /24hrs) 0.03 \$ 150 62-4 Melt Flow Rate, 320°C/5.0 kgf 4.5 9/10 min ASTM D1238 Melt Volume Rate, MVR at 320°C/5.0 kg 4.3 cm/10 min SMBIC method Mold Shrinkage, flow (2) 0.7-0.9 \$ SABIC method Mold Shrinkage, xllow (2) 7.0 \$ SABIC method Biolectric Constant, 1.1 GHz 7.4 \$ SABIC method Disleption Factor, 1.9 GHz 7.0 \$ SABIC method Disleptic Constant, 1.9 GHz 7.5 \$ SABIC method Disleption Factor, 1.9 GHz 8.0 \$ SABIC method Disleption Factor, 1.9 GHz 8.0 \$ SABIC method	-40°C to 90°C, flow	6.4E-5	1/°C	ASTM E831
Specific Gravity2.07ASTM D792Water Absorption, (23°C/24hrs)0.07Moisture Absorption, (23°C/50% RH/24hrs)0.03Melt Flow Rate, 320°C/5.0 kgf5.5Melt Volume Rate, MVR at 320°C/5.0 kg0.7-0.9Mold Shrinkage, kflow (2)0.7-0.9Mold Shrinkage, kflow (2)Dielectric Constant, 1.1 GHz7.4Dielectric Constant, 1.9 GHzDissipation Factor, 1.9 GHzDissipation Factor, 5 GHzDiving Temperature	-40°C to 90°C, xflow	6.9E-5	1/°C	ASTM E831
Water Absorption, (23°C/24hrs) 0.07 % 150 62-1 Moisture Absorption, (23°C/50% RH/24hrs) 0.03 % 150 62-4 Melt Flow Rate, 320°C/5.0 kgf 8.5 g/10 min ASTM D1238 Melt Volume Rate, MVR at 320°C/5.0 kg 4.3 cm²/10 min 50 1133 Mold Shrinkage, flow (2) 0.7-0.9 % ASIC method Mold Shrinkage, xflow (2)	PHYSICAL (1)			
Moisture Absorption, (2°C/50%RH/24hrs) 0.03 % 100 624 Melt Flow Rate, 320°C/5.0 kgf 8.5 y/10 min ASTM D1238 Melt Volume Rate, MVR at 320°C/5.0 kg 4.3 m²/10 min 100 1133 Mold Shrinkage, flow (²) 0.7 - 0.9 % ASIC method Mold Shrinkage, xflow (²) 7.0 % ASIC method Biblication Factor, 1.1 GHz 7.4 2.0 ASIC method Dissipation Factor, 1.1 GHz 7.4 2.0 ASIC method Dissipation Factor, 1.9 GHz 7.4 2.0 ASIC method Dissipation Factor, 1.9 GHz 7.4 2.0 ASIC method Dissipation Factor, 1.9 GHz 7.5 2.0 ASIC method Dissipation Factor, 5 GHz 0.019 2.0 ASIC method Dissipation Factor, 5 GHz 5.5 4.0 ASIC method Dissipation Factor, 5 GHz 5.0 4.0 ASIC method Dissipation Factor, 5 GHz 9.0 2.0 ASIC method Dissipation Factor, 5 GHz 9.0 2.0 ASIC method	Specific Gravity	2.07	-	ASTM D792
Melt Flow Rate, 32°C/5.0 kgf 8.5 g/10 min ASTM D1238 Melt Volume Rate, MVR at 32°C/5.0 kg 4.3 cm²/10 min ISO 1133 Mold Shrinkage, fflow ⁽²⁾ 0.7 - 0.9 % ABIC method Mold Shrinkage, xflow ⁽²⁾ 7.9 % ABIC method ELECTRICAL ⁽¹⁾ ** ** ABIC method Dielectric Constant, 1.1 GHz 7.4 2.0 ABIC method Dissipation Factor, 1.9 GHz 7.4 2.0 ABIC method Dissipation Factor, 1.9 GHz 7.4 2.0 ABIC method Dissipation Factor, 1.9 GHz 7.5 2.0 ABIC method Dissipation Factor, 5 GHz 7.5 2.0 ABIC method Dissipation Factor, 5 GHz 7.5 2.0 ABIC method INJECTION MOLDING ⁽³⁾ 5.0 2.0 ABIC method Polying Time 3.5 18.5 1.5 </td <td>Water Absorption, (23°C/24hrs)</td> <td>0.07</td> <td>%</td> <td>ISO 62-1</td>	Water Absorption, (23°C/24hrs)	0.07	%	ISO 62-1
Melt Volume Rate, MVR at 320°C/5.0 kg 4.3 cm²/l 0 min SO 1133 Mold Shrinkage, flow (²) 0.7 – 0.9 % SABIC method Mold Shrinkage, xflow (²) 0.7 – 0.9 % SABIC method ELECTRICAL (¹) ** SABIC method Dielectric Constant, 1.1 GHz 7.4 . SABIC method Dissipation Factor, 1.9 GHz 0.0013 . SABIC method Dissipation Factor, 1.9 GHz 0.0013 . SABIC method Dissipation Factor, 5 GHz 0.0019 . SABIC method Dissipation Factor, 5 GHz 0.0019 . SABIC method Dissipation Factor, 5 GHz 0.0019 . SABIC method Diving Temperature 105 – 120 . SABIC method Drying Time 105 – 120 . . SABIC method Nozzle Temperature 20 – 320 . <	Moisture Absorption, (23°C/50% RH/24hrs)	0.03	%	ISO 62-4
Mold Shrinkage, flow (2) Mold Shrinkage, xflow (3) Mold Shrinkage, xflow (2) Mold Shrinkage, xflow (2) Mold Shrinkage, xflow (3) Mold Shrinkage, xflow (4) Mold Shrinkage, xfl	Melt Flow Rate, 320°C/5.0 kgf	8.5	g/10 min	ASTM D1238
Mold Shrinkage, xflow (2)8.7 - 0.98.8 CmethodELECTRICAL (1)Dielectric Constant, 1.1 GHz7.42.03.6 IC methodDissipation Factor, 1.1 GHz0.0012.03.6 IC methodDielectric Constant, 1.9 GHz7.42.03.6 IC methodDissipation Factor, 1.9 GHz0.00132.03.8 IC methodDissipation Factor, 5 GHz0.00192.03.8 IC methodDissipation Factor, 5 GHz0.0192.03.8 IC methodDying Temperature1.05 - 1.201.02.03.8 IC methodMelt Temperature2.0 - 3.202.02.02.0Possipation Factor 3 Temperature2.0 - 3.202.02.02.0Tont-Zone 3 Temperature2.0 - 3.02.02.02.0Middle-Zone 2 Temperature2.0 - 3.02.02.02.0Rear-Zone 1 Temperature2.0 - 3.02.02.02.0Mold Temperature9.0 - 1.202.02.02.0Mold Temperature9.0 - 1.202	Melt Volume Rate, MVR at 320°C/5.0 kg	4.3	cm³/10 min	ISO 1133
ELECTRICAL (**) Dielectric Constant, 1.1 GHz 7.4 .0 SABIC method Dissipation Factor, 1.1 GHz 0.001 .0 SABIC method Dielectric Constant, 1.9 GHz 7.4 .0 SABIC method Dissipation Factor, 1.9 GHz 0.0013 .0 SABIC method Dielectric Constant, 5 GHz 7.5 .0 SABIC method Dissipation Factor, 5 GHz 0.0019 .0 SABIC method INJECTION MOLDING (**) Drying Temperature 105 – 120 C ** Diving Time 3 – 5 Hrs ** Melt Temperature 290 – 320 C ** Nozale Temperature 290 – 320 C ** Front - Zone 3 Temperature 280 – 310 C ** Middle- Zone 2 Temperature 270 – 300 C ** Rear - Zone 1 Temperature 90 – 120 C ** Mol Temperature 90 – 120 C ** Back Pressure 90 – 120 C **	Mold Shrinkage, flow ⁽²⁾	0.7 - 0.9	%	SABIC method
Dielectric Constant, 1.1 GHz7.4SABIC methodDissipation Factor, 1.1 GHz0.001SABIC methodDielectric Constant, 1.9 GHz7.4SABIC methodDissipation Factor, 1.9 GHz0.0013SABIC methodDissipation Factor, 5 GHz7.5SABIC methodDissipation Factor, 5 GHz0.0019SABIC methodINJECTION MOLDING (3)Dying Temperature105 − 120Dying Time3 − 5HrsMelt Temperature290 − 320Nozal Temperature290 − 320Front - Zone 3 Temperature290 − 320Middle - Zone 2 Temperature290 − 320Middle - Zone 2 Temperature270 − 300Mold Temperature90 − 120Mold Temperature90 − 120Mold Temperature30 − 100Mold Temperature30 − 100	Mold Shrinkage, xflow ⁽²⁾	0.7 - 0.9	%	SABIC method
Dissipation Factor, 1.1 GHz0.001- O.001SABIC methodDiselectric Constant, 1.9 GHz7.4- O.0013SABIC methodDissipation Factor, 1.9 GHz0.0013- O.0013SABIC methodDiselectric Constant, 5 GHz7.5- O.0019SABIC methodDissipation Factor, 5 GHz0.0019- O.0019SABIC methodINJECTION MOLDING ⁽³⁾ Drying Temperature105 − 120°CDrying Time3 − 5HrsMelt Temperature290 − 320°CNozzle Temperature290 − 320°CFront - Zone 3 Temperature290 − 320°CMiddle - Zone 2 Temperature290 − 320°CRear - Zone 1 Temperature270 − 300°CMold Temperature90 − 120°CMold Temperature90 − 120°CBack Pressure0.3 − 0.9MPa	ELECTRICAL (1)			
Dielectric Constant, 1.9 GHz7.4- O.0013SABIC methodDissipation Factor, 1.9 GHz0.0013- O.0013SABIC methodDielectric Constant, 5 GHz7.5- O.0019SABIC methodDissipation Factor, 5 GHz0.0019- O.0019SABIC methodINJECTION MOLDING (3)Drying Temperature105 − 120*CDrying Time3 − 5HirsMelt Temperature290 − 320*CNozzle Temperature290 − 320*CFront - Zone 3 Temperature290 − 320*CMiddle - Zone 2 Temperature280 − 310*CRear - Zone 1 Temperature270 − 300*CMold Temperature90 − 120*CBack Pressure0.3 − 0.9M/Pa	Dielectric Constant, 1.1 GHz	7.4	-	SABIC method
Dissipation Factor, 1,9 GHz Dislectric Constant, 5 GHz Dislectric Constant, 5 GHz Dissipation Factor, 5 GHz Dissipation Factor, 5 GHz Dissipation Factor, 5 GHz Drying Tomperature Drying Temperature Drying Time 105 – 120 3 – 5 Hrs Melt Temperature Deportature Deportation Deportatio	Dissipation Factor, 1.1 GHz	0.001	-	SABIC method
Dielectric Constant, 5 GHz Dissipation Factor, 5 GHz Dissipation Factor, 5 GHz Diving Temperature Drying Temperature Drying Time 105 – 120 105 – 3	Dielectric Constant, 1.9 GHz	7.4	-	SABIC method
Dissipation Factor, 5 GHz NJECTION MOLDING (3) Prying Temperature Drying Time 3 - 5 Melt Temperature 290 - 320 Nozzle Temperature 290 - 320 C Tront - Zone 3 Temperature 290 - 320 Middle - Zone 2 Temperature 290 - 320 C Rear - Zone 1 Temperature 370 - 300 C Mold Temperature 370 - 300 MPa MPa MPa SABIC method SABIC method ABIC meth	Dissipation Factor, 1.9 GHz	0.0013	-	SABIC method
INJECTION MOLDING (3)Drying Temperature105 – 120°CDrying Time3 – 5HrsMelt Temperature290 – 320°CNozzle Temperature290 – 320°CFront - Zone 3 Temperature290 – 320°CMiddle - Zone 2 Temperature280 – 310°CRear - Zone 1 Temperature270 – 300°CMold Temperature90 – 120°CBack Pressure0.3 – 0.9MPa	Dielectric Constant, 5 GHz	7.5		SABIC method
Drying Temperature 105 – 120 °C Drying Time 3 – 5 Hrs Melt Temperature 290 – 320 °C Nozzle Temperature 290 – 320 °C Front - Zone 3 Temperature 290 – 320 °C Middle - Zone 2 Temperature 280 – 310 °C Rear - Zone 1 Temperature 270 – 300 °C Mold Temperature 90 – 120 °C Back Pressure MPa	Dissipation Factor, 5 GHz	0.0019	-	SABIC method
Drying Time 3-5 Hrs Melt Temperature 290-320 °C Nozzle Temperature 290-320 °C Front - Zone 3 Temperature 290-320 °C Middle - Zone 2 Temperature 280-310 °C Rear - Zone 1 Temperature 270-300 °C Mold Temperature 90-120 °C Back Pressure 0.3-0.9 MPa	INJECTION MOLDING (3)			
Melt Temperature 290 – 320 °C Nozzle Temperature 290 – 320 °C Front - Zone 3 Temperature 290 – 320 °C Middle - Zone 2 Temperature 280 – 310 °C Rear - Zone 1 Temperature 270 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Drying Temperature	105 – 120	°C	
Nozzle Temperature 290 – 320 °C Front - Zone 3 Temperature 290 – 320 °C Middle - Zone 2 Temperature 280 – 310 °C Rear - Zone 1 Temperature 270 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Drying Time	3 – 5	Hrs	
Front - Zone 3 Temperature 290 – 320 °C Middle - Zone 2 Temperature 280 – 310 °C Rear - Zone 1 Temperature 270 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Melt Temperature	290 – 320	°C	
Middle - Zone 2 Temperature 280 – 310 °C Rear - Zone 1 Temperature 270 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Nozzle Temperature	290 – 320	°C	
Rear - Zone 1 Temperature 270 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Front - Zone 3 Temperature	290 – 320	°C	
Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Middle - Zone 2 Temperature	280 – 310	°C	
Back Pressure 0.3 – 0.9 MPa	Rear - Zone 1 Temperature	270 – 300	°C	
	Mold Temperature	90 – 120	°C	
Screw Speed 50 – 150 rpm	Back Pressure	0.3 - 0.9	MPa	
	Screw Speed	50 – 150	rpm	

⁽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.



ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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