

LNPTM THERMOCOMPTM COMPOUND ZKC04

DESCRIPTION

LNP THERMOCOMP ZKC04 compound is based on Polyphenylene Ether / Polystyrene (PPE/PS) blend containing 20% minerals and impact modifier. Added features of this grade include: High Dielectric Constant (Dk), Extremely Low Dissipation Factor (Df), Good Ductility and Good Thermal Performance.

GENERAL INFORMATION	
Features	Dielectrics, Impact resistant, No PFAS intentionally added
Fillers	Mineral
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20241021

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL (1)			
Tensile Stress, yld, Type I, 50 mm/min	58	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	51	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	9	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	34	%	ASTM D638
Tensile Modulus, 50 mm/min	2290	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	86	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	84	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2080	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	57	MPa	ISO 527
Tensile Stress, break, 50 mm/min	49	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	8.9	%	ISO 527
Tensile Strain, break, 50 mm/min	33	%	ISO 527
Tensile Modulus, 1 mm/min	2240	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	93	MPa	ISO 178
Flexural Stress, break, 2 mm/min	91	MPa	ISO 178
Flexural Modulus, 2 mm/min	2210	MPa	ISO 178
IMPACT (1)			
Izod Impact, notched, 23°C	720	J/m	ASTM D256
Izod Impact, notched, -20°C	135	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	55	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	13	kJ/m²	ISO 180/1A



THEMBAL 10	PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
NOT, 0.45 MPa, 3.2 mm, unannealed 174 °C ASM D648 NOT, 1.28 MPa, 3.2 mm, unannealed 194 °C ASM D648 CTC, 40°C to 150°C, flow 68-83 1/°C ASM R831 CTC, 40°C to 150°C, flow 94-65 1/°C ASM R831 NOTZ, 1.5 MB R8 18 wo 10°4 specifiem 175 °C 0575 j/l NOTZ, 1.5 MB R8 18 wo 10°4 specifiem 65 °C 01.746 Relative Temp Index, Mech Wijnnact ¹⁰ 65 °C 01.746 Relative Temp Index, Mech Wijnnact ¹⁰ 77-09 \$ 0.04 Mold Shrinkage, flow ¹⁰ 77-09 \$ 0.04 Mold Shrinkage, flow ¹⁰ 27-09 \$ 0.04 Mold Shrinkage, flow ¹⁰ 27-09 \$ 0.05 Mold Shrinkage, flow ¹⁰ 29-09 \$ 0.05 Mold Shrinkage, flow ¹⁰ 29-09 \$ 0.05 Mold Shrinkage, flow ¹⁰ 29-09 \$ 0.01 Mold Shrinkage, flow ¹⁰ 30 0.00 0.00 Mold Shrinkage, flow ¹⁰ 30	THEDMAI (1)			
RFOT, 1.82 MPα, 3.2mm, unamealed 154 CPC ASTM B641 CTL, 4.0°C to 150°C, flow 56-90 1°C ASTM B81 CTL, 4.0°C to 150°C, flow 54-05 1°C ASTM B181 HDTJAL, 34 MPa Flatw 80°10°4 spe-64mm 155 °C 10.75 β/I Relative Temp Index, Mech w/Impact ¹⁰ 65 °C 10.74 88 Relative Temp Index, Mech w/Impact ¹⁰ 67 °C 10.74 88 Relative Temp Index, Mech w/Impact ¹⁰ 67 °C 0.74 98 ASIC method Relative Temp Index, Mech w/Impact ¹⁰ 0.7-0.9 \$ ASIC method Mold Shrinkage, xiflow ¹⁰ 0.7-0.9 \$ ASIC method Mold Shrinkage, xiflow ¹⁰ 10 9.10 min ASIM D123 Mel How Rate, 300°C/15 kgf 11 9.00 min MSIM D123 Mel How Rate, 300°C/15 kgf 30 30 MSIC method Mel How Rate, 300°C/16 kgf 30 30 MSIC method Mel How Rate, 300°C/16 kgf 30 30 30 MSIC method Belectric Constant, 1.0 tlc 30		174	°C	ASTM D648
CFL. 40°Cto 150°C, rilow 58-808 1°C ASTM 883 1.0 CTE. 40°Cto 150°C, rilow 94-605 1°C ASTM 883 1.0 HDTSE 6.45 Mar Falsw 90°0'4 sp-64mm 155 C 50.75/k HDTJAL 1.8 MPa Plata w80°10'4 sp-64mm 65 C 10.74 Me Relative Temp Index, Rech "In place, Klech "In place, Klech wijnopate" 65 C U.74 Re Relative Temp Index, Mech wijnopate "In place, Klech wijnopate" 67 O.9 S 0.0 1.4 Re Relative Temp Index, Mech wijnopate "In place, Klech wijnopate" 0.7 - 0.9 \$ 0.0 0.0 1.0 0.0 </th <th></th> <th></th> <th></th> <th></th>				
CT. 4.0°C to 150°C, stlow 9.44-03 1,°C ASIM ISBAIL HOT JRL 0.45 MPa Flax w8 10°C 4 spe-64mm 155 °C 150 75 /A Relative Temp Index, Detc. ^{CR} 150 75 /A CR 150 75 /A Relative Temp Index, Mech w/Impact ^{CR} 65 °C 01 7468 Relative Temp Index, Mech w/Impact ^{CR} 65 °C 02 74 468 Relative Temp Index, Mech w/Impact ^{CR} 65 °C 02 74 468 Relative Temp Index, Mech w/Impact ^{CR} 67 °C 02 74 468 Relative Temp Index, Mech w/Impact ^{CR} 75 °C 02 74 468 Relative Temp Index, Mech w/Impact ^{CR} 75 °C 02 74 468 CR Relative Temp Index, Mech w/Impact ^{CR} 75 75 Meth Coll Strinkinge, Mech w/Impact ^{CR} 75 Medic Mech Mech w/Impact ^{CR} 75 75 75 Medic Mech Mech w/Impact ^{CR} 75 75 75 75 75 75 75 75 75 75				
HOT/III. JA MPA Flatuk 80°10°4 spe-6mm 155 °C 100 / 145 Relative Temp Index, Bedative Temp Index, Mech wilmpact (°) 65 °C 10 / 468 Relative Temp Index, Mech wilmpact (°) 65 °C 10 / 468 Relative Temp Index, Mech wilmpact (°) 67 °C 10 / 468 Whost Shrinkage, flow (°) 70 - 9.9 8 SABIC method Mold Shrinkage, flow (°) 70 - 9.9 8 SABIC method Mold Shrinkage, flow (°) 11 91 0 min 51 MID 1238 Mel Flow Rate, 300°C/50 kgf 11 91 0 min 51 MID 1238 Mel Flow Rate, 300°C/50 kgf 12 91 0 min 50 1133 Water Absorption, (23°C/24hrs) 10 91 0 min 50 1133 Well Volume Rate, MVR at 300°C/50 kg 10 91 0 min 50 1133 Belectric Constant, 1.1 Gt2 30 91 0 min 50 1133 Belectric Constant, 1.2 Gt2 30 91 0 min 50 1133 Diseptation Factor, 1.1 Gt2 30 91 0 min 50 0 min Dissipation Factor, 1.0 Gt2 91 0 min			,	
HOT/AT, 1.8 MPR Platw 80*10⁴4 sp-64 wm 155 °C 157 A/F Relative Temp Index, Bice ⁽¹⁾ 65 °C 12.7 468 Relative Temp Index, Mech w/Impact ⁽¹⁾ 55 °C 12.7 468 Relative Temp Index, Mech w/Impact ⁽¹⁾ 50 °C 12.7 468 Prystock, ⁽¹⁾ V 2 AFRICA (mellod Plance) Mold Shrinkage, flow ⁽¹⁾ 0.7 -0.9 8 ABIC mellod Mell Flow Rate, 300°C/10 kgf 11 9 /10 min ASTM D1238 Mel Flow Rate, 300°C/10 kgf 33 9 /10 min ASTM D1238 Mel Flow Rate, 300°C/10 kgf 12 9 /10 min ASTM D1238 Mel Flow Rate, MVR at 300°C/10 kg 3 9 /10 min ASTM D1238 Mel Volume Rate, MVR at 300°C/10 kg 10 9 /10 min S0 /12 min Mel Volume Rate, MVR at 300°C/10 kg 3.0 9 /10 min S0 /13 min Dielectric Constant, 1.9 GHz 3.0 9 /10 min S0 /13 min Dielectric Constant, 1.9 GHz 3.0 9 /10 min S0 /10 min S0 /10 min Disspation Factor, 1.1 GHz<			,	
Relative Temp Index, Merch yimpact ¹⁰¹ 65 "C U.74 68 Relative Temp Index, Merch yimpact ²⁰¹ 65 "C U.74 68 Relative Temp Index, Merch yimpact ²⁰¹ 50 "C U.74 68 PRIVISICAL ¹⁰¹ Temp Index, Merch yimpact ²⁰¹ 70-99 8 ABIC method Mold Shrinkage, Rifow ¹⁰ 70-99 8 ABIC method Melt Flow Rate, 300°C/5.0 kgf 13 3 (91min ASTM D1238 Melt Flow Rate, 300°C/10 kgf 23 3 (91min STM D1238 Melt Flow Rate, 300°C/5.0 kg 12 2 (91min STM D1238 Water Assorption, (23°C/24hrs) 10 2 (91min STM D1238 Melt Volume Rate, MVR at 300°C/5.0 kg 10 2 (91min SD 133 Belectric Constant, 1.0 Griz 3 3 4 ABIC method Belectric Constant, 1.0 Griz 3 3 4 ABIC method Dielectric Constant, 1.0 Griz 4 3 3 ABIC method Dissipat	· ·			,
Relative Temp Index. Methor Jimpact (**) 63 "C U.7468 Relative Temp Index. Methor Jimpact (**) 50 0.7468 1.74				·
Relative Temp Index, Mechan/pinance (**) 1975 (2014) PHYSICAL (**) *** Wind Shrinkage, riflow (**) 7.0.9.0 \$ ABC method Mold Shrinkage, riflow (**) 7.0.9.0 \$ ABC method Melt Flow Rate, 300°C/Jo.kgf 11 3.0.0 10 min ATM D128 Berk How Rate, 300°C/Jo.kgf 12 3.0 10 min ATM D128 Berk Volume Rate, MVR at 300°C/Jo.kg 10 2.0 10 min 3.0				
PMSICAL® FAMILY PRINTINGE FAMILY PRINTINGE SAME (Method Path Path Path Path Path Path Path Path				
Mold Shrinkage, flow ⁽³⁾ 0.7 - 0.9 \$ SAIC method Melt Flow Rate, 300° (-) So kgf 11 0.7 - 0.9 \$ SAIC method Melt Flow Rate, 300° (-) So kgf 11 0.9 () ASTM D1238 Density 1.21 0.9 () ASTM D1238 Water Absorption, (23° (-) Cabris) 0.0 \$ 0.0 1.0 0.0		05	C	UL 740B
Mold Shrinkan, exflow (h) 0.7 - 0.9 % (1) min (2) mi		0.7.00	0/	CARIC
Met Flow Rate, 30°C/10 kgf 11 31 17 min ATM D128 Density 12 cl 18 c	_			
Melt How Rate, 300°C/10 kgf 33 glomin ASTM D1238 Density 121 20 9cm² 150 183 Water Absorption, (2°C/24hrs) 0.05 2m² 150 6133 Melt Volume Rate, MVR at 300°C/5.0 kg 10 m²/10 min 50 1133 Melt Volume Rate, MVR at 300°C/10.0 kg 3 3 13 13 ELECTRICAL (**) ************************************				
Density 1.21 g/m² 10183 Water Absorption, (23°C/24hrs) 0.05 % 50 62-1 Melt Volume Rate, MVR at 300°C/10.0 kg 10 cm/10 min 50 1133 Melt Volume Rate, MVR at 300°C/10.0 kg 30 cm/10 min 50 1133 ELECTRICAL	, ,			
Water Absorption, (23°C/24hrs) 0.05 % 100-24 Melt Volume Rate, MVR at 300°C/1.0 kg 10 cm²/10 min 80 133 Bett Volume Rate, MVR at 300°C/1.00 kg 3 10 m²/10 min 80 133 ELECTRICAL 10 Use Cartic Constant, 1.1 GHz 3.04 2 SABIC method Dielectric Constant, 1.9 GHz 3.05 4 2 SABIC method Dielectric Constant, 1.9 GHz 3.06 2 SABIC method Diespation Factor, 1.1 GHz 0.0009 2 SABIC method Dissipation Factor, 1.9 GHz 0.0011 2 SABIC method Dissipation Factor, 1.0 GHz 0.0014 2 SABIC method Dissipation Factor, 1.0 GHz 0.0014 2 SABIC method Use Vallow Card Link E.0780-102475263 2 SABIC method Use Vallow Card Link E.07780-102475263 2 1 Use Clotha Constant, 1.0 GHz 2 2 2 Use Vallow Card Link E.07880-102475263 3 2 2			_,	
Melt Volume Rate, MVR at 300°C/5.0 kg 10 cm²/10 min ISO 133 Melt Volume Rate, MVR at 300°C/10.0 kg 31 cm²/10 min ISO 133 ELECTRICAL ⁽¹⁾ V V SABC method Dielectric Constant, 1.1 GHz 3.04 2 ABIC method Dielectric Constant, 1.9 GHz 3.05 2 ABIC method Dielectric Constant, 1.0 GHz 3.06 2 ABIC method Dielectric Constant, 1.0 GHz 3.06 2 ABIC method Dissipation Factor, 1.1 GHz 0.001 2 ABIC method Dissipation Factor, 1.9 GHz 0.001 2 ABIC method Dissipation Factor, 1.0 GHz 0.001 2 ABIC method Dissipation Factor, 1.0 GHz 0.002 2 ABIC method Dissipation Factor, 1.0 GHz 2 ABIC method Dissipation Factor, 1.0 GHz 2 ABIC method Dissipation Factor, 1.0 GHz 2 ABIC method Use LONG 2 ABIC method Dissipation Factor, 1.0 GHz 2 ABIC method <tr< td=""><td>•</td><td></td><td></td><td></td></tr<>	•			
Melt Volume Rate, MVR at 300°C/10.0 kg 31 cm³/10 min SO 133 ELECTRICAL ⁽¹⁾ FUNCTION CONSTANT, 1.0 GLZ 3.04 2.0 3.0BIC method Dielectric Constant, 1.9 GHz 3.05 2.0 3.0BIC method Dielectric Constant, 5 GHz 3.06 2.0 3.0BIC method Dielectric Constant, 10 GHz 3.06 2.0 3.0BIC method Disipation Factor, 1.1 GHz 0.0009 2.0 3.0BIC method Disipation Factor, 9.6 GHz 0.0011 2.0 3.0BIC method Disipation Factor, 10 GHz 0.0014 2.0 3.0BIC method Disipation Factor, 10 GHz 0.0014 2.0 3.0BIC method Disipation Factor, 10 GHz 0.0014 2.0 3.0BIC method Divisipation Factor, 10 GHz 2.0 3.	. , , ,			
ELECTRICAL ¹¹ Dielectric Constant, 1.1 GHz 3.04 - SABIC method Dielectric Constant, 1.9 GHz 3.05 - SABIC method Dielectric Constant, 1.0 GHz 3.06 - SABIC method Dielectric Constant, 1.0 GHz 3.06 - SABIC method Dissipation Factor, 1.1 GHz 0.0009 - SABIC method Dissipation Factor, 1.9 GHz 0.0014 - SABIC method Dissipation Factor, 1.0 GHz 0.0014 - SABIC method Dissipation Factor, 1.0 GHz 0.002 - SABIC method Dissipation Factor, 1.0 GHz 0.0014 - SABIC method Dissipation Factor, 1.0 GHz 0.002 - SABIC method Dissipation Factor, 1.0 GHz 0.002 - SABIC method Uk Plow Card Link 207.780.102475263 - - - Uk Plow Card Link 90.780.102475263 - - - Diving Time 90.502.00 - - - - Diving Time 90.502.00 - - - - -				
Dielectric Constant, 1.1 GHz 3.04 SABIC method Dielectric Constant, 1.9 GHz 3.05 SABIC method Dielectric Constant, 5 GHz 3.06 SABIC method Dielectric Constant, 10 GHz 3.06 SABIC method Dissipation Factor, 1.1 GHz SABIC method Dissipation Factor, 1.9 GHz SABIC method Dissipation Factor, 1.9 GHz SABIC method Dissipation Factor, 1.9 GHz SABIC method Dissipation Factor, 1.0 GHz SABIC method Dissipation Factor, 1.0 GHz SABIC method Dissipation Factor, 1.0 GHz		31	cm ³ /10 min	ISO 1133
Dielectric Constant, 1.9 GHz 3.05 ABIC method Dielectric Constant, 5 GHz 3.06 ABIC method Dielectric Constant, 10 GHz 3.06 ABIC method Dissipation Factor, 1.1 GHz 0.0009 ABIC method Dissipation Factor, 5 GHz 0.0011 ABIC method Dissipation Factor, 10 GHz 0.0024 ABIC method Dissipation Factor, 10 GHz ABIC method ABIC method Divide Characteristics (**) *** *** ABIC method Ux Plow Gard Link E207780-102475263 ** **	ELECTRICAL (1)			
Dielectric Constant, 5 GHz 3.06 - SABIC method Dielectric Constant, 10 GHz 3.06 - SABIC method Dissipation Factor, 1.1 GHz 0.0009 - SABIC method Dissipation Factor, 9 GHz 0.0011 - SABIC method Dissipation Factor, 10 GHz 0.002 - SABIC method Dissipation Factor, 10 GHz 0.002 - SABIC method U Yellow Card Link E07788-102475263 - SABIC method U Yellow Card Link E07788-102475263 -	Dielectric Constant, 1.1 GHz	3.04	-	SABIC method
Dielectric Constant, 10 GHz 3.06 SABIC method Dissipation Factor, 1.1 GHz 0.0009 SABIC method Dissipation Factor, 1.9 GHz 0.0011 SABIC method Dissipation Factor, 10 GHz 0.0014 SABIC method Dissipation Factor, 10 GHz 0.002 SABIC method LAME CHARACTERISTICs (*) U.Y Yellow Card Link £207780-102475263 LY Yellow Card Link 1 mm U.94 LY Yellow Card Link 2 <th< td=""><td>Dielectric Constant, 1.9 GHz</td><td>3.05</td><td>-</td><td>SABIC method</td></th<>	Dielectric Constant, 1.9 GHz	3.05	-	SABIC method
Dissipation Factor, 1.1 GHz0.0009- O.001ABIC methodDissipation Factor, 5 GHz0.0014- O.002ABIC methodDissipation Factor, 10 GHz0.002- O.002ABIC methodFAME CHARACTERISTICs Page 10 May	Dielectric Constant, 5 GHz	3.06	-	SABIC method
Dissipation Factor, 1.9 GHz0.0011- CASABIC methodDissipation Factor, 5 GHz0.0014- CASABIC methodBisipation Factor, 10 GHz0.002- CASABIC methodFLAME CHARACTERISTICS (*)Ut Yellow Card LinkE207780-102475263- CA- CAUt Recognized, 94HB Flame Class Rating10mmU.94INJECTION MOLDING (*)Drying Temperature105C- CPrying Time3−5Hrs- CMelt Temperature295−320C- CNozzle Temperature290−320C- CFont - Zone 3 Temperature300−320C- CMiddle - Zone 2 Temperature290−310C- CMel Temperature280−300C- CBear - Zone 1 Temperature280−300C- CMold Temperature90−120C- CMold Temperature30−120MPa- C	Dielectric Constant, 10 GHz	3.06	-	SABIC method
Dissipation Factor, 5 GHz0.0014002SABIC methodDissipation Factor, 10 GHz0.002002SABIC methodFLAME CHARACTERISTICS (²)Ut Yellow Card LinkE207780-102475263002002Ut Recognized, 94HB Flame Class Rating1mmUt 94INJECTION MOLDING (4)Drying Temperature105CPrying Time3 - 5HrsMelt Temperature295 - 320CNozzle Temperature290 - 320CFront - Zone 3 Temperature300 - 320CMiddle - Zone 2 Temperature290 - 310CRear - Zone 1 Temperature280 - 300CMold Temperature90 - 120CMold Temperature90 - 120MPa	Dissipation Factor, 1.1 GHz	0.0009	-	SABIC method
Dissipation Factor, 10 GHz0.002- Canada (Paramateristrics)588 (Paramateristrics)Li Vellow Card LinkE207780-102475263- Canada (Paramateristrics)- U.94UL Recognized, 94HB Flame Class Rating1- Canada (Paramateristrics)- U.94Dying Temperature105- Canada (Paramateristrics)- Canada (Paramateristrics)Dying Time3-5HrisMelt Temperature295-320- Canada (Paramateristrics)Dozzle Temperature290-320- Canada (Paramateristrics)Middle- Zone 3 Temperature300-320- Canada (Paramateristrics)Middle- Zone 2 Temperature290-310- Canada (Paramateristrics)Middle- Zone 1 Temperature290-300- Canada (Paramateristrics)Mold Temperature90-120- Canada (Paramateristrics)Mold Temperature90-120- Maramateristrics)Mold TemperatureMold Temperature90-120- Maramateristrics)Mold Temperature90-120- Maramateri	Dissipation Factor, 1.9 GHz	0.0011	-	SABIC method
FLAME CHARACTERISTICS ⁽²⁾ Ut Yellow Card Link	Dissipation Factor, 5 GHz	0.0014	-	SABIC method
UL Yellow Card Link UL Recognized, 94HB Flame Class Rating 105 Prying Temperature 105 Melt Temperature 205-320 Nozzle Temperature 209-320 Nozzle Temperature 209-320 Nozzle Temperature 300-320 Nozzle Temperature 300-320 Nozzle Temperature 300-320 Nozzle Temperature 300-310 Nozzle Tempera	Dissipation Factor, 10 GHz	0.002	-	SABIC method
UL Recognized, 94HB Flame Class Rating INECTION MOLDING (4) Drying Temperature Drying Time 3 - 5 Melt Temperature 295 - 320 Nozzle Temperature 290 - 320 C Front - Zone 3 Temperature 300 - 320 C Middle - Zone 2 Temperature 300 - 310 C Rear - Zone 1 Temperature 300 - 120 Mold Temperature 303 - 0.9 MPa	FLAME CHARACTERISTICS (2)			
INJECTION MOLDING (4)Drying Temperature105°CDrying Time3 – 5HrsMelt Temperature295 – 320°CNozzle Temperature290 – 320°CFront - Zone 3 Temperature300 – 320°CMiddle - Zone 2 Temperature290 – 310°CRear - Zone 1 Temperature280 – 300°CMold Temperature90 – 120°CBack Pressure0.3 – 0.9MPa	UL Yellow Card Link	E207780-102475263	-	-
Drying Temperature 105 °C Drying Time 3 – 5 Hrs Melt Temperature 295 – 320 °C Nozzle Temperature 290 – 320 °C Front - Zone 3 Temperature 300 – 320 °C Middle - Zone 2 Temperature 290 – 310 °C Rear - Zone 1 Temperature 280 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	UL Recognized, 94HB Flame Class Rating	1	mm	UL 94
Drying Temperature 105 °C Drying Time 3 – 5 Hrs Melt Temperature 295 – 320 °C Nozzle Temperature 290 – 320 °C Front - Zone 3 Temperature 300 – 320 °C Middle - Zone 2 Temperature 290 – 310 °C Rear - Zone 1 Temperature 280 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	INJECTION MOLDING (4)			
Melt Temperature 295 – 320 °C Nozzle Temperature 290 – 320 °C Front - Zone 3 Temperature 300 – 320 °C Middle - Zone 2 Temperature 290 – 310 °C Rear - Zone 1 Temperature 280 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa		105	°C	
Nozzle Temperature 290 – 320 °C Front - Zone 3 Temperature 300 – 320 °C Middle - Zone 2 Temperature 290 – 310 °C Rear - Zone 1 Temperature 280 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Drying Time	3 – 5	Hrs	
Front - Zone 3 Temperature 300 – 320 °C Middle - Zone 2 Temperature 290 – 310 °C Rear - Zone 1 Temperature 280 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Melt Temperature	295 – 320	°C	
Middle - Zone 2 Temperature 290 – 310 °C Rear - Zone 1 Temperature 280 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Nozzle Temperature	290 – 320	°C	
Rear-Zone 1 Temperature 280 – 300 °C Mold Temperature 90 – 120 °C Back Pressure 0.3 – 0.9 MPa	Front - Zone 3 Temperature	300 – 320	°C	
Mold Temperature 90 − 120 °C Back Pressure 0.3 − 0.9 MPa	Middle - Zone 2 Temperature	290 – 310	°C	
Back Pressure 0.3 – 0.9 MPa	Rear - Zone 1 Temperature	280 – 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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) 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.
- (4) 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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.