

# LEXANTM COPOLYMER HFD1034

## REGION EUROPE

## **DESCRIPTION**

7 MFR LEXAN HFD Copolymer UV-stabilized, available in transparent colors only

## **TYPICAL PROPERTY VALUES**

Revision 20240621

| PROPERTIES                                   | TYPICAL VALUES | UNITS | TEST METHODS   |
|--|----------------|-------|----------------|
|  | THICKE WILDES  | ONTS  | TEST INIETHOOS |
| MECHANICAL (1)                               |                |       |                |
| Tensile Stress, yld, Type I, 50 mm/min       | 58             | MPa   | ASTM D638      |
| Tensile Stress, brk, Type I, 50 mm/min       | 67             | MPa   | ASTM D638      |
| Tensile Strain, yld, Type I, 50 mm/min       | 6              | %     | ASTM D638      |
| Tensile Strain, brk, Type I, 50 mm/min       | 142            | %     | ASTM D638      |
| Tensile Modulus, 5 mm/min                    | 2260           | MPa   | ASTM D638      |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 98             | MPa   | ASTM D790      |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 2240           | MPa   | ASTM D790      |
| Hardness, Rockwell R                         | 120            | -     | ASTM D785      |
| Tensile Stress, yield, 50 mm/min             | 60             | MPa   | ISO 527        |
| Tensile Stress, break, 50 mm/min             | 73             | MPa   | ISO 527        |
| Tensile Strain, yield, 50 mm/min             | 6              | %     | ISO 527        |
| Tensile Strain, break, 50 mm/min             | 141            | %     | ISO 527        |
| Tensile Modulus, 1 mm/min                    | 2080           | MPa   | ISO 527        |
| Flexural Stress, yield, 2 mm/min             | 89             | MPa   | ISO 178        |
| Flexural Modulus, 2 mm/min                   | 2070           | MPa   | ISO 178        |
| IMPACT (1)                                   |                |       |                |
| Izod Impact, notched, 23°C                   | 966            | J/m   | ASTM D256      |
| Izod Impact, notched, -30°C                  | 899            | J/m   | ASTM D256      |
| Multiaxial Impact                            | 134            | J     | ISO 6603       |
| Instrumented Dart Impact Total Energy, 23°C  | 78             | J     | ASTM D3763     |
| Izod Impact, unnotched 80*10*3 +23°C         | NB             | kJ/m² | ISO 180/1U     |
| Izod Impact, unnotched 80*10*3 -30°C         | NB             | kJ/m² | ISO 180/1U     |
| Izod Impact, notched 80*10*3 +23°C           | 72             | kJ/m² | ISO 180/1A     |
| Izod Impact, notched 80*10*3 -30°C           | 63             | kJ/m² | ISO 180/1A     |
| Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm   | 82             | kJ/m² | ISO 179/1eA    |
| Charpy -30°C, V-notch Edgew 80*10*3 sp=62mm  | 69             | kJ/m² | ISO 179/1eA    |
| Charpy 23°C, Unnotch Edgew 80*10*3 sp=62mm   | NB             | kJ/m² | ISO 179/1eU    |
| Charpy -30°C, Unnotch Edgew 80*10*3 sp=62mm  | NB             | kJ/m² | ISO 179/1eU    |
| THERMAL (1)                                  |                |       |                |
| Vicat Softening Temp, Rate B/50              | 136            | °C    | ASTM D1525     |
| HDT, 0.45 MPa, 3.2 mm, unannealed            | 125            | °C    | ASTM D648      |
| HDT, 1.82 MPa, 3.2mm, unannealed             | 115            | °C    | ASTM D648      |
| CTE, -40°C to 40°C, flow                     | 8.E-05         | 1/°C  | ASTM E831      |
| CTE, -40°C to 40°C, xflow                    | 8.E-05         | 1/°C  | ASTM E831      |
| CTE, -40°C to 40°C, flow                     | 8.E-05         | 1/°C  | ISO 11359-2    |



| PROPERTIES   |   |                         |            |                |
|--|---|-------------------------|------------|----------------|
| Ball Pressure Text, 128°C + /- 2°C PASS 9-0 REC 60095-10-2   Vicat Softening Temp, Rate 8   50 130 °C 80-306   MCK Gat Softening Temp, Rate 8   170 131 °C 80-30   MCKG SOftening Temp, Rate 8   172 105 °C UZ-768   Relative Temp Index, Elec <sup>©</sup> 105 °C UZ-768   Relative Temp Index, Mech w/l impact <sup>©</sup> 105 °C UZ-768   Relative Temp Index, Mech w/l impact <sup>©</sup> 105 °C MSIM D792   Relative Temp Index, Mech w/l impact <sup>©</sup> 12 SMIM D792   Breside Gravity 1.2 SMIM D792   Breside Gravity 1.2 ASIM D792   Molt Gravity 1.2 ASIM D792   Molt Strinkage, flow, 3.2 mm <sup>©</sup> 1.2 ASIM D792   Molt Gravity Rate, 300°C/1.2 kg/l 7 ASIM D792   Molt Gravity Rate, 300°C/1.2 kg/l 0.3 SMIM D792   Molt Land Absorption (23°C/strated) 0.3 SMIM D792   Molt Park Absorption (23°C/strated) 8 SMIM D792   Molt Park Absorption (23°C/strated)   | PROPERTIES                                  | TYPICAL VALUES          | UNITS      | TEST METHODS   |
| Vicat Softening Temp, Rate II/20 131 °C 80.366   Vicat Softening Temp, Rate II/20 131 °C 80.05 / M   MCIAT SMP Flaths 80*10*4 spe4mm 115 °C 105 / M   Relative Temp Index, Belec (°) 105 °C 0.17468   Relative Temp Index, Mech w/l Impact (°) 105 °C 0.17468   Relative Temp Index, Mech w/l Impact (°) 105 °C 0.17468   Relative Temp Index, Mech w/l Impact (°) 105 °C 0.17468   Relative Temp Index, Mech w/l Impact (°) 12 °C ASTM 0792   Specific Gravity 1.2 9/cm² ASTM 0792   Density 1.2 9/cm² Molt Molt Mech 2000 (°) (1.2 kgf) 7 9/cm² 50 1183   Mels Flow Rate, 300°C/1.2 kgf 0.3 3.5 9/cm² 50 1183   Moltsture Absorption (23°C/ StoRH) 0.15 % 50 62   Moltsture Absorption (23°C/ StoRH) 1.5 % ASTM 0703   Reface Lem Index 1 % ASTM 0703   Reface Lem Index   | CTE, -40°C to 40°C, xflow                   | 8.E-05                  | 1/°C       | ISO 11359-2    |
| Vical Softening Temp, Rate B J 20 131 °C 150 75 / AT   HOT I/A. 1.8 MPa Flatis NO 1010*4 spe4mm 115 °C 150 75 / AT   Relative Temp Index, Bec <sup>201</sup> 105 °C 12 74 88   Relative Temp Index, Mech w/impact <sup>201</sup> 105 °C U.7 468   Relative Temp Index, Mech w/impact <sup>201</sup> 105 °C U.7 468   PHYSICAL <sup>10</sup> V V L   Specific Gravity 1 2 ASIM O792   Density 1 2 9 / Cm² ASIM O792   Mold Shrinkage, flow, 3.2 mm <sup>10</sup> 12 9 / Cm² ASIM O792   Mold Flow Rate, 300°C/1.2 kgf 7 9 / Cm² ASIM D792   Melt Flow Rate, 300°C/1.2 kgf 1 2 9 / Cm² MSIM D103   Water Absorption (23°C/1.2 kgf 0 1 2 9 / Cm² 105 / Cm²   Molsture Absorption (23°C/1.2 kgf 8 2 9 / Cm² 105 / Cm²   Molsture Absorption (23°C/1.2 kgf 8 2 2 105 / Cm² 105 / Cm² 105 / Cm² <  | Ball Pressure Test, 125°C +/- 2°C           | PASS                    | -          | IEC 60695-10-2 |
| Maria Flaw 801104 spr-84mm   115   150 | Vicat Softening Temp, Rate B/50             | 130                     | °C         | ISO 306        |
| Relative Temp Index, Belce (°I) 105 °C U.7468   Relative Temp Index, Mech w/ impact (°I) 105 °C U.7468   Relative Temp Index, Mech w/ impact (°I) 105 °C U.7468   Foetile Cravity 1.2 S ASTM 0792   Density 1.2 G ASTM 0792   Mold Sprinkage, flow, 3.2 mm (°I) 5.0.7 \$ ASTM 0792   Mell Flow Rate, 300°C/12 kgf 7 910 mim ASTM 0792   Water Absorption, (23°C / Saturated) 0.3 \$ 0.0 Class   Water Absorption, (23°C / Saturated) 0.1 0.3 \$ 0.0 Class   Well Volume Rate, Wilk at 300°C/1.2 kg 6 0.0 0.0 0.0 0.0   Mell Volume Rate, Wilk at 300°C/1.2 kg 8 \$ ASTM 01003 0.0 0.   | Vicat Softening Temp, Rate B/120            | 131                     | °C         | ISO 306        |
| Relative Temp Index, Mech w/n impact (2) 105 °C U.7 468   Relative Temp Index, Mech w/n impact (2) 105 °C U.7 468   PHYSICAL (1)** ************************************  | HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm       | 115                     | °C         | ISO 75/Af      |
| Relative Temp Index, Mech w/o inpact (°) 105 °C U17468   PHYSICAL (¹) Secfic Gravity 1.2 3 CMT D792   Density 2.2 3 CMT D792   Mold Shrinkage, flow, 3,2 mm (¹) 1.2 3 CMT D792   Melt Flow Rate, 300°C/1.2 kgf 7 9 (10 min ASTM D1238   Density 1.2 3 (10 min) ASTM D1238   Water Absorption, (23°C/saturated) 0.15 % 150 G2   Molsture Absorption (23°C/saturated) 0.15 % 150 G2   Moltsure Absorption (23°C/saturated) 0.15 % 0.01 G2   Male Volume Rate, MVR at 300°C/1.2 kg 8 8 8 A STM D1003   Backer 24 mm 2 4 2 2   Ught Tax msission, 2.5 km mm  | Relative Temp Index, Elec <sup>(2)</sup>    | 105                     | °C         | UL 746B        |
| PHYSICAL. <sup>11</sup> Specific Gravity 1.2 6.0 ASTM D792   Density 1.2 9/cm² ASTM D792   Mold Shrinkage, flow, 3.2 mm <sup>(1)</sup> 0.5 – 0,7 % ASTM D1238   Mold Shrinkage, flow, 3.2 mm <sup>(1)</sup> 7 9/cm² ASTM D1238   Water Absorption (23°C/ saturated) 1.2 9/cm² 100 183   Water Absorption (23°C/ 508 RH) 0.1 5 60 62   Molisture Absorption (23°C/ 508 RH) 0.1 6 0.0 100 62   Molisture Absorption (23°C/ 508 RH) 0.1 5 0.0 100 62   Molisture Absorption (23°C/ 508 RH) 0.1 5 0.0 20 62   Molisture Absorption (23°C/ 508 RH) 0.1 5 0.0 20 133   Molisture Absorption (23°C/ 508 RH) 0.1 5 0.0 20 133   Molisture Absorption (23°C/ 508 RH) 0.1 5 0.0 20 133   Molisture Absorption (23°C/ 508 RH) 0.1 5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 <td>Relative Temp Index, Mech w/impact (2)</td> <td>105</td> <td>°C</td> <td>UL 746B</td>   | Relative Temp Index, Mech w/impact (2)      | 105                     | °C         | UL 746B        |
| Specific Gravity 1.2 ASTM D792   Density 1.2 Genation ASTM D792   Mold Shrinkage, flow, 3.2 mm (³¹) 0.5 – 0.7 % Indication ASTM D1288   Molet Flow Rate, 300°C/1.2 kgf 7 gl on in ASTM D1288   Boesity 1.2 gl on in SATM D1288   Water Absorption, (23°C/ 50x RH) 0.3 % 50 €2   Molst Volume Rate, MVR at 300°C/1.2 kg 0.15 % 50 €2   Melt Volume Rate, MVR at 300°C/1.2 kg 6 9 9 0.5 2   By Open Call String Assistance Assertion 8 8 ASTM D1003 2   By Open Call String Assistance Assertion 4 ASTM D1003 2 4 1 2 4 1 2 4 1 2 4 1 2 4 1 2 4 1 2 4 1 4 1 4 4 4 4 4 4 4 4 4 4 4 4  | Relative Temp Index, Mech w/o impact (2)    | 105                     | °C         | UL 746B        |
| Density 1.2 ASTM 0792   Mold Shrinkage, flow, 3.2 mm <sup>(5)</sup> 0.5 – 0.7 % ASIM 0792   Melt Flow Rate, 300°C/1.2 kgf 7 9/10 min ASTM 1238   Density 1.2 g/m 150 6183   Water Absorption (23°C/saturated) 0.3 % 50 62.1   Molisture Absorption (23°C/s0×RH) 0.15 % 150 62   Melt Volume Rate, MVR at 300°C/1.2 kg 6 2 100 62   Melt Volume Rate, MVR at 300°C/1.2 kg 8 % ASTM D1003   Baze, 2.54 mm 8 % ASTM D1003   Refractive Index 1 2 ASTM D1003   Refractive Index 1 4 ASTM D1003   Vi Vellow Card Link £45329-100987609 2 .   Ut Recognized, 94HB Flame Class Rating 8.0 % .   Ut Explored Full 5 10 C .   Uniform Cumulative) 3 4 Hrs .   Driving Time (Cumulative) 2 2 . .   | PHYSICAL (1)                                |                         |            |                |
| Mold Shrinkage, flow, 3.2 mm (*) 0.5 – 0.7 \$ ASIM Creethod   Melt Flow Rate, 300°C/1.2 kgf 7 9 (10 min) ASTM D1238   Density 1.2 9 (10 min) 850 1183   Water Absorption, (23°C/saturated) 0.3 \$ 60 62-1   Molisture Absorption (23°C / 50% kH) 0.15 \$ 80 62-1   Melt Volume Rate, MVR at 300°C/1.2 kg 6 ∞³/10 min 150 1133   OPTICAL (*)   Light Transmission, 2.54 mm 8 % ASTM D1003   Haze, 2.54 mm 1 2 ASTM D1003   Haze, 2.54 mm 1 1 4 ASTM D1003   Haze, 2.54 mm 4 1 4  | Specific Gravity                            | 1.2                     | -          | ASTM D792      |
| Melt Flow Rate, 300°C/1.2 kgf 7 g/l main ASTM D1238   Density 1.2 9/cm³ 150 1183   Water Absorption, (23°C/saturated) 0.3 % 150 62-1   Moisture Absorption (23°C/50%RH) 0.15 ∞1/10 min 150 62-1   Melt Volume Rate, MWR at 300°C/1.2 kg 6 ∞1/10 min 150 1133   OPTICAL   Under Volume Rate, MWR at 300°C/1.2 kg 8 % ASTM D1003   OPTICAL   Under Volume Rate, MWR at 300°C/1.2 kg 8 % ASTM D1003   OPTICAL INTO TAX PART AS AS AS AS AS AS M D1003   Hase 2.5.4 mm 4 ASTM D1003 ASTM D1003   Refractive Index 152 2 ASTM D1003 ASTM D1003   Refractive Index 5 25.91.0987609 2   | Density                                     | 1.2                     | g/cm³      | ASTM D792      |
| Density 1.2 g/cm³ SO 1183   Water Absorption (23°C/ saturated) 0.3 % 150 62-1   Moisture Absorption (23°C/ 50% RH) 0.15 % 150 62   Melt Volume Rate, MVR at 300°C/ 1.2 kg 6 cm²/10 min 150 62   OPTICAL II U % ASTM D1003   Haze, 2.54 mm 88 % ASTM D1003   Refractive Index 1.582 2 ASTM D542   ELAME CHARACTERISTICS I <sup>21</sup> U Y ASTM D542   UL Vellow Card Link 26.3 N ASTM D542   UL Recognized, 94HB Flame Class Rating 26.8 mm U 9   UNECTION MOLDING. <sup>64</sup> 15 10 ° 1 <td>Mold Shrinkage, flow, 3.2 mm <sup>(3)</sup></td> <td>0.5 – 0.7</td> <td>%</td> <td>SABIC method</td>  | Mold Shrinkage, flow, 3.2 mm <sup>(3)</sup> | 0.5 – 0.7               | %          | SABIC method   |
| Water Absorption (23°C / 50% RH) 0.3 % ISO 62-1   Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62   Melt Volume Rate, MVR at 300°C / 1.2 kg 6 cm²/10 min ISO 1133   OPTICAL (¹)   Light Transmission, 2.54 mm 88 % ASTM D1003   Haze, 2.54 mm  ASTM D1003 ASTM D1003   Refractive Index 1.582 • ASTM D1003   Effact-CHARACTERISTICS (²) ** ASTM D1003   UL Yellow Card Link £45329-100987609 • **   UL Recognized, 94HB Flame Class Rating £0.8 mm UL 94   NIZECTION MOLDING (⁴)   Unying Temperature 105-110 ** **   Drying Time (Cumulative) 3-4 His **   Drying Time (Cumulative) 260-305 ** **   Makinum Moisture Content 0.02 ** **   Nozzle Temperature 260-305 ** **   Nozzle Temperature 260-305 **  | Melt Flow Rate, 300°C/1.2 kgf               | 7                       | g/10 min   | ASTM D1238     |
| Moisture Absorption (23°C / 50% RH) 0.15 % ISO 62   Melt Volume Rate, MVR at 300°C / 1.2 kg 6 cm³/10 min ISO 1133   OPTICAL (¹)   Light Transmission, 2.54 mm 88 % ASTM D1003   Refractive Index 1.582 ∘ ASTM D1003   Refractive Index   UL Yellow Card Link £45329-100987609 ∘ ·   UL Recognized, 94HB Flame Class Rating 8.8 mm UL 94   DVI Recognized, 94HB Flame Class Rating 105 - 110 °C ·   DVI Recognized, 94HB Flame Class Rating 105 - 110 °C ·   DVI Recognized, 94HB Flame Class Rating 3 - 4 Hrs ·   Drying Time (cumulative) 24 Hrs · <th< td=""><td>Density</td><td>1.2</td><td>g/cm³</td><td>ISO 1183</td></th<>   | Density                                     | 1.2                     | g/cm³      | ISO 1183       |
| Melt Volume Rate, MNR at 300°C/1.2 kg 6 cm³/10 min ISO 1133   OPTICAL (¹¹) U U C ASTM D1003   Haze, 2.54 mm \$1 \$8 \$6 ASTM D1003   Refractive Index 1.582 • ASTM D1003   ELAME CHARACTERISTICS (²) U V   UL Yellow Card Link £45329-100987609 • •   UL Recognized, 94HB Flame Class Rating 20.8 mm U 94   INJECTION MOLDING (**) ** **   Drying Temperature 105 - 110 °C **   Drying Time (Cumulative) 3 - 4 Hrs **   Maximum Moisture Cortent 20.2 %* **   Melt Temperature 260 - 305 °C **   Nozzle Temperature 260 - 305 °C **   Front - Zone 3 Temperature 260 - 295 °C **   Middle - Zone 2 Temperature 50 - 80 °C **   Mold Temperature 50 - 80 °C **   Mold Temperature   | Water Absorption, (23°C/saturated)          | 0.3                     | %          | ISO 62-1       |
| OPTICAL <sup>(1)</sup> Light Transmission, 2.54 mm 88 % ASTM D1003   Haze, 2.54 mm <1  | Moisture Absorption (23°C / 50% RH)         | 0.15                    | %          | ISO 62         |
| Light Transmission, 2.54 mm 88 % ASTM D1003   Haze, 2.54 mm <1 % ASTM D1003   Refractive Index 1.582 - ASTM D542   FLAME CHARACTERISTICS (2)   UL Yellow Card Link £45329-100987609 - -   UL Recognized, 94HB Flame Class Rating 20.8 mm UL 94   INJECTION MOLDING (4)   Drying Temperature 105 - 110 °C -   Drying Time (Cumulative) 3 - 4 Hrs -   Maximum Moisture Content 0.02 % -   Maximum Moisture Content 260 - 305 °C -   Nozzle Temperature 260 - 305 °C -   Nozzle Temperature 260 - 305 °C -   Middle-Zone 2 Temperature 250 - 295 °C -   Rear - Zone 1 Temperature 50 - 80 °C -   Mold Temperature 50 - 80 °C -   Back Pressure 35 - 75 pm -   Screw Speed   | Melt Volume Rate, MVR at 300°C/1.2 kg       | 6                       | cm³/10 min | ISO 1133       |
| Haze, 2.54 mm <1 % ASTM D1003   Refractive Index 1.582 · ASTM D542   FLAME CHARACTERISTICS (2)   UL Yellow Card Link £45329-100987609 · ·   UL Recognized, 94HB Flame Class Rating ≥0.8 mm UL 94   INJECTION MOLDING (4)   Unjet Time Class Rating 105 – 110 °C C   Drying Time 3 – 4 Hrs Hrs   Maximum Moisture Content 0.02 % C   Melt Temperature 260 – 305 °C C   Nozzle Temperature 260 – 305 °C C   Front - Zone 3 Temperature 260 – 305 °C C   Middle - Zone 2 Temperature 260 – 305 °C C   Rear - Zone 1 Temperature 240 – 280 °C C   Mold Temperature 50 – 80 °C C   Back Pressure 0.3 – 0.7 MPa F   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 –   | OPTICAL (1)                                 |                         |            |                |
| Refractive Index 1.582 - ASTM D542   FLAME CHARACTERISTICS (²)   UL Yellow Card Link £45329-100987609 - -   UL Recognized, 94HB Flame Class Rating ≥ 0.8 mm UL 94   INJECTION MOLDING (⁴)   Drying Temperature 105 – 110 °C   Drying Time (Cumulative) 4 Hrs   Maximum Moisture Content 0.02 %   Melt Temperature 260 – 305 °C   Nozzle Temperature 255 – 300 °C   Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %   | Light Transmission, 2.54 mm                 | 88                      | %          | ASTM D1003     |
| FLAME CHARACTERISTICS <sup>(2)</sup> UL Yellow Card Link £45329-100987609 - -   UL Recognized, 94HB Flame Class Rating 20.8 mm UL 94   INJECTION MOLDING <sup>(4)</sup> Drying Temperature 105 – 110 °C   Drying Time (Cumulative) 3 – 4 Hrs   Maximum Moisture Content 0.02 % -   Melt Temperature 260 – 305 °C -   Nozzle Temperature 255 – 300 °C -   Front - Zone 3 Temperature 260 – 305 °C -   Middle - Zone 2 Temperature 250 – 295 °C -   Rear - Zone 1 Temperature 50 – 80 °C -   Mold Temperature 50 – 80 °C -   Back Pressure 0.3 – 0.7 MPa -   Screw Speed 35 – 75 rpm -   Shot to Cylinder Size 40 – 60 % -   | Haze, 2.54 mm                               | <1                      | %          | ASTM D1003     |
| UL Yellow Card Link E45329-100987609 - -   UL Recognized, 94HB Flame Class Rating ≥0.8 mm UL 94   INJECTION MOLDING <sup>(4)</sup> Drying Temperature 105 – 110 °C C   Drying Time 3 – 4 Hrs F   Drying Time (Cumulative) 24 Hrs F   Maximum Moisture Content 0.02 % C   Nozzle Temperature 260 – 305 °C C   Front - Zone 3 Temperature 260 – 305 °C C   Middle - Zone 2 Temperature 250 – 295 °C C   Rear - Zone 1 Temperature 240 – 280 °C C   Mold Temperature 50 – 80 °C C   Back Pressure 0.3 – 0.7 MPa F   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 % C   | Refractive Index                            | 1.582                   | -          | ASTM D542      |
| UL Recognized, 94HB Flame Class Rating ≥0.8 mm UL 94   INJECTION MOLDING <sup>(4)</sup> "C   Drying Temperature 105 – 110 °C   Drying Time Hrs C   Maximum Moisture Content 0.02 %   Melt Temperature 260 – 305 °C   Nozzle Temperature 255 – 300 °C   Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %   | FLAME CHARACTERISTICS (2)                   |                         |            |                |
| INJECTION MOLDING <sup>(4)</sup> Drying Temperature 105 − 110 °C   Drying Time 3 − 4 Hrs   Drying Time (Cumulative) 24 Hrs   Maximum Moisture Content 0.02 %   Melt Temperature 260 − 305 °C   Nozzle Temperature 255 − 300 °C   Front - Zone 3 Temperature 260 − 305 °C   Middle - Zone 2 Temperature 250 − 295 °C   Rear - Zone 1 Temperature 240 − 280 °C   Mold Temperature 50 − 80 °C   Back Pressure 0.3 − 0.7 MPa   Screw Speed 35 − 75 rpm   Shot to Cylinder Size 40 − 60 %   | UL Yellow Card Link                         | <u>E45329-100987609</u> | -          |                |
| Drying Temperature 105 – 110 °C   Drying Time 3 – 4 Hrs   Drying Time (Cumulative) 24 Hrs   Maximum Moisture Content 0.02 %   Melt Temperature 260 – 305 °C   Nozzle Temperature 255 – 300 °C   Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | UL Recognized, 94HB Flame Class Rating      | ≥0.8                    | mm         | UL 94          |
| Drying Time 3 - 4 Hrs   Drying Time (Cumulative) 24 Hrs   Maximum Moisture Content 0.02 %   Melt Temperature 260 - 305 ° C   Nozzle Temperature 255 - 300 ° C   Front - Zone 3 Temperature 260 - 305 ° C   Middle - Zone 2 Temperature 250 - 295 ° C   Rear - Zone 1 Temperature 240 - 280 ° C   Mold Temperature 50 - 80 ° C   Back Pressure 0.3 - 0.7 MPa   Screw Speed 35 - 75 rpm   Shot to Cylinder Size 40 - 60 %  | INJECTION MOLDING (4)                       |                         |            |                |
| Drying Time (Cumulative) 24 Hrs   Maximum Moisture Content 0.02 %   Melt Temperature 260 – 305 °C   Nozzle Temperature 255 – 300 °C   Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Drying Temperature                          | 105 – 110               | °C         |                |
| Maximum Moisture Content 0.02 %   Melt Temperature 260 – 305 °C   Nozzle Temperature 255 – 300 °C   Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Drying Time                                 | 3 – 4                   | Hrs        |                |
| Melt Temperature 260 – 305 °C   Nozzle Temperature 255 – 300 °C   Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Drying Time (Cumulative)                    | 24                      | Hrs        |                |
| Nozzle Temperature 255 – 300 °C   Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Maximum Moisture Content                    | 0.02                    | %          |                |
| Front - Zone 3 Temperature 260 – 305 °C   Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Melt Temperature                            | 260 – 305               | °C         |                |
| Middle - Zone 2 Temperature 250 – 295 °C   Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Nozzle Temperature                          | 255 – 300               | °C         |                |
| Rear - Zone 1 Temperature 240 – 280 °C   Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %   | Front - Zone 3 Temperature                  | 260 – 305               | °C         |                |
| Mold Temperature 50 – 80 °C   Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Middle - Zone 2 Temperature                 | 250 – 295               | °C         |                |
| Back Pressure 0.3 – 0.7 MPa   Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Rear - Zone 1 Temperature                   | 240 – 280               | °C         |                |
| Screw Speed 35 – 75 rpm   Shot to Cylinder Size 40 – 60 %  | Mold Temperature                            | 50 – 80                 | °C         |                |
| Shot to Cylinder Size 40 – 60 %  | Back Pressure                               | 0.3 – 0.7               | MPa        |                |
| ·  | Screw Speed                                 | 35 - 75                 | rpm        |                |
| <b>Vent Depth</b> 0.038 – 0.076 mm   | Shot to Cylinder Size                       | 40 – 60                 | %          |                |
|  | Vent Depth                                  | 0.038 – 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) 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. 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.
- (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.

#### **MORE INFORMATION**

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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