

KEYFLEX BT 1028D

Injection Molding, TPC-ET

Description

General Purpose, Low Modulus

Application

Auto Interiors, Soft Touch Grips, Overmolding Parts, etc.

| Properties | Test Condition | Test Method | Unit | Typical Value |
|---|----------------|-------------|--------------------|---------------|
| Physical | | | | |
| Specific Gravity | | ASTM D792 | - | 1.05 |
| Molding Shrinkage (Flow), 3.2mm | | ASTM D955 | % | 0.4~0.8 |
| Melt Flow Rate | 230 °C/2.16kg | ASTM D1238 | g/10min | 25 |
| Water Absorption | 23 °C, 24hrs | ASTM D570 | % | 0.8 |
| Mechanical | | | | |
| Tensile Strength, 2mm | | ASTM D638 | | |
| @ Yield | 50mm/min | | kg/cm ² | |
| @ Break | 50mm/min | | kg/cm ² | 200 |
| Tensile Elongation, 2mm | | ASTM D638 | | |
| @ Yield | 50mm/min | | % | |
| @ Break | 50mm/min | | % | 900 |
| Flexural Strength, 6.4mm | 15mm/min | ASTM D790 | kg/cm ² | |
| Flexural Modulus, 6.4mm | 15mm/min | ASTM D790 | kg/cm ² | |
| Tear Strength @ Break | 50mm/min | ASTM D624 | kg/cm | |
| IZOD Impact Strength, 6.4mm (Notched) | | ASTM D256 | | |
| | 23 °C | | kg·cm/cm | No break |
| | -40 °C | | kg·cm/cm | No break |
| Shore Hardness | Shore D | ASTM D2240 | - | 25 |
| Shore Hardness | Shore A | ASTM D2240 | - | 75 |
| Thermal | | | | |
| Melt Temperature @ Peak | | ASTM D3418 | °C | 155 |
| Heat Deflection Temperature, 6.4mm (Unannealed) | 4.6kg | ASTM D648 | °C | |
| Flammability | | UL94 | | |
| 1.5mm | | | class | HB |
| 3.0mm | | | class | HB |
| Electrical | | | | |
| Comparative Tracking Index(CTI) | Solution A | IEC 60112 | Volts | 600 |
| Surface Resistivity | | IEC 60093 | Ohm | |
| Volume Resistivity | 23 °C | ASTM D257 | Ohm·m | |
| Dielectric Strength, 1mm | 23 °C | ASTM D149 | kV/mm | |
| Dielectric Constant (10 ⁶ Hz) | 23 °C | ASTM D150 | sec | |

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Values given should not be interpreted as specification and not be used for part or tool design.

All properties, except melt flow rate are measured on injection molded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

Updated : 25-Jun-14

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.

KEYFLEX BT 1028D

Injection Molding, TPC-ET

Description

General Purpose, Low Modulus

Application

Auto Interiors, Soft Touch Grips, Overmolding Parts, etc.

Processing Guide (Injection Molding)

| Processing Parameters | Unit | Value | |
|--------------------------|--------------------|-----------|-----------|
| Drying Temperature | °C | 80 ~ 90 | |
| Drying Time | hrs | 3 ~ 4 | |
| Maximum Moisture Content | % | 0.01 | |
| Melt Temperature | °C | 160 ~ 200 | |
| Cylinder Temperature | Rear | °C | 170 ~ 190 |
| | Middle | °C | 180 ~ 200 |
| | Front | °C | 190 ~ 210 |
| Nozzle Temperature | °C | 190 ~ 210 | |
| Mold Temperature | °C | 10 ~ 35 | |
| Back Pressure | kg/cm ² | | |
| Screw Speed | rpm | | |

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

Processing Guide (Extrusion Molding)

| Processing Parameters | Unit | Value | |
|--------------------------|--------|-----------|-----------|
| Drying Temperature | °C | 80 ~ 90 | |
| Drying Time | hrs | 3 ~ 4 | |
| Maximum Moisture Content | % | 0.01 | |
| Melt Temperature | °C | 160 ~ 200 | |
| Barrel Temperature | Zone 1 | °C | 160 ~ 180 |
| | Zone 2 | °C | 170 ~ 190 |
| | Zone 3 | °C | 180 ~ 200 |
| | Zone 4 | °C | 180 ~ 200 |
| Adapter Temperature | °C | 180 ~ 200 | |
| Die Temperature | °C | 170 ~ 190 | |

Note) Recommend initial lower temperatures settings to avoid material degradation/hang-up in die & purge material from extruder prior to shutdown.

Updated : 25-Jun-14

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.