

## TECHNICAL DATASHEET

**TRIEX<sup>®</sup> HM3022G20**

PC

| PROPERTY                                   | UNIT                             | ASTM METHOD | TYPICAL DATA           |
|--------------------------------------------|----------------------------------|-------------|------------------------|
| <b>PHYSICAL</b>                            |                                  |             |                        |
| Specific Gravity                           | -                                | D792        | 1.31                   |
| Water Absorption (24 hours at 23°C)        | %                                | D570        | 0.12                   |
| Melt Flow Rate (300°C, 1.2kg)              | g/10min                          | D1238       | 6                      |
| <b>MECHANICAL</b>                          |                                  |             |                        |
| Tensile Strength at yield                  | kg <sub>f</sub> /cm <sup>2</sup> | D638        | 940                    |
| Tensile Elongation at break                | %                                | D638        | 4                      |
| Flexural Strength at yield                 | kg <sub>f</sub> /cm <sup>2</sup> | D790        | 1,300                  |
| Flexural Modulus                           | kg <sub>f</sub> /cm <sup>2</sup> | D790        | 43,000                 |
| Izod Impact Strength, notched, 23°C (1/8") | kg <sub>f</sub> ·cm/cm           | D256        | 15                     |
| Rockwell Hardness                          | R scale                          | D785        | 122                    |
| <b>THERMAL</b>                             |                                  |             |                        |
| HDT, 18.6 kgf/cm <sup>2</sup>              | °C                               | D648        | 140                    |
| Coefficient of Linear Thermal Expansion    | mm/mm/°C                         | D696        | 2.7 x 10 <sup>-5</sup> |
| <b>ELECTRICAL</b>                          |                                  |             |                        |
| Volume Resistivity                         | Ω·cm                             | D257        | 4E+16                  |
| Dielectric Strength                        | kV/mm                            | D149        | 19                     |
| Dielectric Constant                        | -                                | D150        | 3.11                   |
| Dissipation Factor                         | -                                | D150        | 0.0097                 |
| ARC Resistance                             | sec                              | D495        | 120                    |
| <b>OTHERS</b>                              |                                  |             |                        |
| UL-94 Flammability (0.75mm thickness)      | -                                | (UL 94)     | HB                     |
| Mold Shrinkage (3mm thickness)             | %                                | D955        | 0.1-0.3                |

※ The figures listed in this table are typical values obtained under the standard test methods and may not be applicable for products that are under different application condition.

## PROCESSING GUIDE

# TRIREX<sup>®</sup> HM3022G20 GRADE

PC

- General processing conditions for TRIREX<sup>®</sup>HM3022G20 are shown below. Drying prior to processing is essential to ensure desired appearance and property performance.

| SPECIFICATION         | UNIT | CONDITIONS |
|-----------------------|------|------------|
| Drying Temperature    | ℃    | 120        |
| Drying Time           | hr   | 3~4        |
| Moisture Content, Max | %    | 0.02       |
| Melt Temperature      | ℃    | 310~330    |
| Nozzle Temperature    | ℃    | 300~320    |
| Front Temperature     | ℃    | 300~320    |
| Middle Temperature    | ℃    | 290~310    |
| Rear Temperature      | ℃    | 280~300    |
| Mold Temperature      | ℃    | 80~110     |
| Back Pressure         | MPa  | 0.3~0.7    |
| Screw Speed           | rpm  | 50~70      |
| Vent Depth            | mm   | 0.02~0.08  |

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