

# SKYGREEN® K2012

Polyethylene Terephthalate Glycol Comonomer

SK Chemicals

## Message:

SKYGREEN® K2012 is a Polyethylene Terephthalate Glycol Comonomer (PETG) material. It is available in Asia Pacific, Europe, or North America. Primary attribute of SKYGREEN® K2012: Flame Rated.

| General Information               |                |                   |                         |
|-----------------------------------|----------------|-------------------|-------------------------|
| UL YellowCard                     | E215991-229326 |                   |                         |
| Physical                          | Nominal Value  | Unit              | Test Method             |
| Specific Gravity                  | 1.27           | g/cm <sup>3</sup> | ASTM D792               |
| Water Absorption (24 hr)          | 0.20           | %                 | ASTM D570               |
| Color b - Hunter <sup>1</sup>     | < 1.00         |                   | ASTM E308               |
| Hardness                          | Nominal Value  | Unit              | Test Method             |
| Rockwell Hardness (R-Scale)       | 116            |                   | ASTM D785               |
| Mechanical                        | Nominal Value  | Unit              | Test Method             |
| Tensile Strength                  |                |                   | ASTM D638               |
| Yield                             | 53.0           | MPa               |                         |
| Break                             | 26.0           | MPa               |                         |
| Tensile Elongation <sup>2</sup>   |                |                   | ASTM D638               |
| Yield                             | 5.0            | %                 |                         |
| Break                             | 70             | %                 |                         |
| Flexural Modulus                  | 2150           | MPa               | ASTM D790               |
| Flexural Strength <sup>3</sup>    | 80.0           | MPa               | ASTM D790               |
| Impact                            | Nominal Value  | Unit              | Test Method             |
| Notched Izod Impact (23°C)        | 90             | J/m               | ASTM D256               |
| Thermal                           | Nominal Value  | Unit              | Test Method             |
| Deflection Temperature Under Load |                |                   | ASTM D648               |
| 0.45 MPa, Unannealed              | 74.0           | °C                |                         |
| 1.8 MPa, Unannealed               | 70.0           | °C                |                         |
| Vicat Softening Temperature       | 83.0           | °C                | ASTM D1525 <sup>4</sup> |
| Electrical                        | Nominal Value  | Unit              | Test Method             |
| Surface Resistivity               | 1.0E+16        | ohms              | ASTM D257               |
| Volume Resistivity                | 1.0E+15        | ohms · cm         | ASTM D257               |
| Dielectric Strength <sup>5</sup>  | 16             | kV/mm             | ASTM D149               |
| Dielectric Constant               |                |                   | ASTM D150               |
| 1 kHz                             | 2.60           |                   |                         |
| 1 MHz                             | 2.40           |                   |                         |
| Dissipation Factor                |                |                   | ASTM D150               |
| 1 kHz                             | 5.0E-3         |                   |                         |

| 1 MHz            | 0.023                            |      |             |
|------------------|----------------------------------|------|-------------|
| Flammability     | Nominal Value                    | Unit | Test Method |
| Flame Rating     |                                  |      | UL 94       |
| 1.00 mm          | HB                               |      |             |
| 1.50 mm          | HB                               |      |             |
| 3.00 mm          | V-2                              |      |             |
| Optical          | Nominal Value                    | Unit | Test Method |
| Gloss (60°)      | 159                              |      | ASTM E308   |
| Refractive Index | 1.570                            |      | ASTM D542   |
| Transmittance    | 89.0                             | %    | ASTM D1003  |
| Haze             | < 1.0                            | %    | ASTM D1003  |
| NOTE             |                                  |      |             |
| 1.               | Illuminant D6500, 10° Observer   |      |             |
| 2.               | 50 mm/min                        |      |             |
| 3.               | 1.3 mm/min                       |      |             |
| 4.               | Loading 1 (10 N)                 |      |             |
| 5.               | 500 V/sec, Method A (Short-Time) |      |             |

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