# NORYL™ RESIN PKN4752

REGION ASIA

## DESCRIPTION

NORYL PKN4752 resin is a non-reinforced, translucent, high heat blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This extrudable and injection moldable grade exhibits high heat resistance, dimensional stability, and appears translucent with a yellow tint in the natural color. NORYL PKN4752 resin is an excellent candidate for high performance packaging in food, electronics, and healthcare. *See NORYL PKN4752F resin for FDA food compliant version.

## TYPICAL PROPERTY VALUES

Revision 20190925

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 86 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 50 mm/min | 73 | MPa | ASTM D 638 |
| Tensile Strain, yld, Type I, 50 mm/min | 6 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 50 mm/min | 15 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 3000 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 144 | MPa | ASTM D 790 |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span | 136 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 3150 | MPa | ASTM D 790 |
| Flexural Modulus, 2.6 mm/min, 100 mm span | 2940 | MPa | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 32 | J/m | ASTM D 256 |
| Instrumented Impact Total Energy, 23°C | 6 | J | ASTM D 3763 |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 173 | °C | ASTM D 1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 160 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 151 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 151 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 6.3E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 5.58E-05 | 1/°C | ASTM E 831 |
| PHYSICAL | | | |
| Specific Gravity | 1.08 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm | 0.6 – 0.9 | % | SABIC method |
| SHEET EXTRUSION | | | |
| Drying Temperature | 70 – 80 | °C | |
| Drying Time | 2 – 4 | hrs | |
| Drying Time (Cumulative) | 8 | hrs | |
| Maximum Moisture Content | 0 | % | |
| Melt Temperature | 265 – 275 | °C | |
| Barrel - Zone 1 Temperature | 205 – 225 | °C | |
| Barrel - Zone 2 Temperature | 215 – 240 | °C | |
| Barrel - Zone 3 Temperature | 240 – 265 | °C | |
| Barrel - Zone 4 Temperature | 240 – 265 | °C | |

© 2019 Copyright by SABIC. All rights reserved

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Adapter Temperature | 240 – 265 | °C | |
| Die Temperature | 240 – 265 | °C | |
| Roll Stack Temp - Top | 105 – 120 | °C | |
| Roll Stack Temp - Middle | 105 – 120 | °C | |
| Roll Stack Temp - Bottom | 105 – 120 | °C | |

## 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.

© 2019 Copyright by SABIC. All rights reserved