# LNP™ VERTON™ COMPOUND RX10409D

RX10409D

## DESCRIPTION

LNP VERTON RX10409D is a compound based on Nylon 66 containing proprietary fillers. Added feature of this grade is: Structural.

## TYPICAL PROPERTY VALUES

Revision 20190308

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, brk, Type I, 5 mm/min | 203 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 2.4 | % | ASTM D 638 |
| Tensile Modulus, 5 mm/min | 12020 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 305 | MPa | ASTM D 790 |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 302 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 11100 | MPa | ASTM D 790 |
| Tensile Stress, break, 5 mm/min | 199 | MPa | ISO 527 |
| Tensile Strain, break, 5 mm/min | 2.3 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 11800 | MPa | ISO 527 |
| Flexural Stress | 285 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 10340 | MPa | ISO 178 |
| IMPACT | | | |
| Charpy Impact, unnotched, 23°C | 88 | kJ/m² | ISO 179/2C |
| Izod Impact, unnotched, 23°C | 1170 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 265 | J/m | ASTM D 256 |
| Multiaxial Impact | 7 | J | ISO 6603 |
| Instrumented Impact Total Energy, 23°C | 22 | J | ASTM D 3763 |
| Izod Impact, unnotched 80*10*4 +23°C | 76 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 24 | kJ/m² | ISO 180/1A |
| Charpy Impact, notched, 23°C | 22 | kJ/m² | ISO 179/2C |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 258 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 253 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 2.2E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 6.4E-05 | 1/°C | ASTM E 831 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 258 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 253 | °C | ISO 75/Af |
| PHYSICAL | | | |
| Specific Gravity | 1.42 | - | ASTM D 792 |
| Density | 1.42 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.66 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.4 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs | 0.8 | % | ASTM D 955 |
| Moisture Absorption (23°C / 50% RH) | 1 | % | ISO 62 |

© 2019 Copyright by SABIC. All rights reserved

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| INJECTION MOLDING | | | |
| Drying Temperature | 80 | °C | |
| Drying Time | 4 | hrs | |
| Maximum Moisture Content | 0.15 – 0.25 | % | |
| Melt Temperature | 290 – 305 | °C | |
| Front - Zone 3 Temperature | 290 – 300 | °C | |
| Middle - Zone 2 Temperature | 290 – 300 | °C | |
| Rear - Zone 1 Temperature | 280 – 295 | °C | |
| Mold Temperature | 95 – 110 | °C | |
| Back Pressure | 0.2 – 0.3 | MPa | |
| Screw Speed | 30 – 60 | rpm | |

## 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