

Ryton® QA200N

Syensqo - Polyphenylene Sulfide

General Information

Product Description

Ryton® QA200N (granular powder) unfilled polyphenylene sulfide exhibits excellent thermal stability and chemical resistance.

General

| | |
|-------------------|--|
| Features | <ul style="list-style-type: none"> • Chemical Resistant • Good Thermal Stability |
| Uses | <ul style="list-style-type: none"> • Compounding |
| RoHS Compliance | <ul style="list-style-type: none"> • RoHS Compliant |
| Appearance | <ul style="list-style-type: none"> • Natural Color |
| Forms | <ul style="list-style-type: none"> • Powder |
| Processing Method | <ul style="list-style-type: none"> • Injection Molding |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------------------|-------------|
| Density / Specific Gravity | 1.34 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) ² (316°C/5.0 kg) | 100 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (0.126 in) | 0.010 | in/in | |
| Water Absorption (24 hr, 73°F) | 0.050 | % | ASTM D570 |
| Ash Content | 0.10 | wt% | ISO 3451-1 |
| Volatiles (302°F) | < 0.30 | wt% | |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 493000 | psi | ISO 527-1 |
| Tensile Stress | 11600 | psi | ISO 527-2 |
| Tensile Strain (Break) | 4.0 | % | ISO 527-2 |
| Flexural Modulus | 493000 | psi | ISO 178 |
| Flexural Stress | 20300 | psi | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (0.125 in) | 1.0 | ft-lb/in | ASTM D256 |
| Notched Izod Impact Strength | 1.9 | ft-lb/in ² | ISO 180/A |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed) | 320 | °F | ASTM D648 |
| Deflection Temperature Under Load 264 psi, Unannealed | 203 | °F | ASTM D648 |
| Glass Transition Temperature | 194 | °F | ISO 11357-2 |
| Vicat Softening Temperature | > 356 | °F | ISO 306 |
| Melting Temperature | 536 | °F | ISO 11357-3 |
| CLTE - Flow | | | ASTM E831 |
| -58 to 122°F | 2.8E-5 | in/in/°F | |
| 212 to 392°F | 6.4E-5 | in/in/°F | |
| Thermal Conductivity | 2.0 | Btu-in/hr/ft ² /°F | |
| Electrical | Nominal Value | Unit | Test Method |
| Surface Resistivity | 1.0E+16 | ohms | ASTM D257 |
| Volume Resistivity | 1.0E+16 | ohms-cm | ASTM D257 |
| Dielectric Strength | 600 | V/mil | ASTM D149 |

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| Electrical | Nominal Value | Unit | Test Method |
|---|---------------|------|-------------|
| Dielectric Constant (77°F, 1 MHz) | 3.20 | | ASTM D150 |
| Dissipation Factor (77°F, 1 MHz) | 2.0E-3 | | ASTM D150 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (0.06 in, Tested by CP Chemical) | V-0 | | UL 94 |
| Oxygen Index | 44 | % | ASTM D2863 |

Notes

¹ Typical properties: these are not to be construed as specifications.

² Procedure B