

# EcoPaXX® Q-Y

Polyamide 410  
DSM Engineering Plastics

Message:

EcoPaXX® Q-Y is a Polyamide 410 (Nylon 410) material. It is available in Asia Pacific, Europe, or North America.

Important attributes of EcoPaXX® Q-Y are:

Eco-Friendly/Green

Impact Modified

| General Information                             |                            |             |                   |             |
|-------------------------------------------------|----------------------------|-------------|-------------------|-------------|
| Additive                                        | Impact Modifier            |             |                   |             |
| Features                                        | Impact Modified            |             |                   |             |
|                                                 | Renewable Resource Content |             |                   |             |
| Physical                                        | Dry                        | Conditioned | Unit              | Test Method |
| Density                                         | 1.08                       | --          | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage                               |                            |             |                   | ISO 294-4   |
| Across Flow                                     | 1.0                        | --          | %                 |             |
| Flow                                            | 1.2                        | --          | %                 |             |
| Water Absorption<br>(Equilibrium, 23°C, 50% RH) | 1.8                        | --          | %                 | ISO 62      |
| Calculated Bio-based<br>Carbon Content          | 66                         | --          | %                 | ASTM D6866  |
| Mechanical                                      | Dry                        | Conditioned | Unit              | Test Method |
| Tensile Modulus                                 | 2500                       | 1300        | MPa               | ISO 527-2   |
| Tensile Stress (Break)                          | 65.0                       | 50.0        | MPa               | ISO 527-2   |
| Tensile Strain (Break)                          | 45                         | > 50        | %                 | ISO 527-2   |
| Flexural Modulus                                | 2400                       | 1300        | MPa               | ISO 178     |
| Flexural Stress                                 | 95.0                       | 50.0        | MPa               | ISO 178     |
| Impact                                          | Dry                        | Conditioned | Unit              | Test Method |
| Charpy Notched Impact<br>Strength               |                            |             |                   | ISO 179/1eA |
| -30°C                                           | 9.0                        | --          | kJ/m <sup>2</sup> |             |
| 23°C                                            | 41                         | 20          | kJ/m <sup>2</sup> |             |
| Charpy Unnotched Impact<br>Strength             |                            |             |                   | ISO 179/1eU |
| -30°C                                           | No Break                   | --          |                   |             |
| 23°C                                            | No Break                   | No Break    |                   |             |
| Thermal                                         | Dry                        | Conditioned | Unit              | Test Method |
| Heat Deflection<br>Temperature                  |                            |             |                   |             |
| 0.45 MPa, Unannealed                            | 165                        | --          | °C                | ISO 75-2/B  |
| 1.8 MPa, Unannealed                             | 76.0                       | --          | °C                | ISO 75-2/A  |

|                                  |               |             |         |             |
|----------------------------------|---------------|-------------|---------|-------------|
| Melting Temperature <sup>1</sup> | 250           | --          | °C      | ISO 11357-3 |
| Electrical                       | Dry           | Conditioned | Unit    | Test Method |
| Volume Resistivity               | > 1.0E+15     | 1.0E+14     | ohms·cm | IEC 60093   |
| Electric Strength                | 34            | 30          | kV/mm   | IEC 60243-1 |
| Comparative Tracking Index       | --            | 600         | V       | IEC 60112   |
| Injection                        | Dry           | Unit        |         |             |
| Drying Temperature               | 80.0          |             | °C      |             |
| Drying Time                      | 4.0 to 8.0    |             | hr      |             |
| Rear Temperature                 | 250 to 270    |             | °C      |             |
| Middle Temperature               | 260 to 280    |             | °C      |             |
| Front Temperature                | 270 to 290    |             | °C      |             |
| Nozzle Temperature               | 270 to 300    |             | °C      |             |
| Processing (Melt) Temp           | 270 to 300    |             | °C      |             |
| Mold Temperature                 | 60.0 to 100   |             | °C      |             |
| Injection Rate                   | Moderate-Fast |             |         |             |
| Back Pressure                    | 3.00 to 10.0  |             | MPa     |             |
| Screw Compression Ratio          | 2.5:1.0       |             |         |             |
| NOTE                             |               |             |         |             |

1. 10°C/min

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#### Recommended distributors for this material

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