

# Wellamid® 42L XE-N

Polyamide 6  
Wellman Engineering Resins

Message:

Wellamid® 42L XE-N is a Polyamide 6 (Nylon 6) material. It is available in Asia Pacific, Europe, Latin America, or North America for injection molding. Typical applications include:  
Automotive  
Engineering/Industrial Parts

| General Information                               |                         |                   |             |
|---------------------------------------------------|-------------------------|-------------------|-------------|
| Uses                                              | Engineered Applications |                   |             |
| Forms                                             | Pellets                 |                   |             |
| Processing Method                                 | Injection Molding       |                   |             |
| Physical                                          | Nominal Value           | Unit              | Test Method |
| Density                                           | 1.13                    | g/cm <sup>3</sup> | ISO 1183    |
| Molding Shrinkage                                 |                         |                   | ISO 294-4   |
| Across Flow : 23°C                                | 1.2 to 1.6              | %                 |             |
| Flow : 23°C                                       | 1.2 to 1.6              | %                 |             |
| Mechanical                                        | Nominal Value           | Unit              | Test Method |
| Tensile Stress (Yield, 23°C)                      | 75.0                    | MPa               | ISO 527-2   |
| Tensile Strain (Yield, 23°C)                      | 65                      | %                 | ISO 527-2   |
| Flexural Modulus (23°C)                           | 2600                    | MPa               | ISO 178     |
| Flexural Stress (23°C)                            | 100                     | MPa               | ISO 178     |
| Impact                                            | Nominal Value           | Unit              | Test Method |
| Notched Izod Impact Strength (23°C)               | 6.0                     | kJ/m <sup>2</sup> | ISO 180     |
| Thermal                                           | Nominal Value           | Unit              | Test Method |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 55.0                    | °C                | ISO 75-2/A  |
| Melting Temperature (DSC)                         | 220                     | °C                | ISO 3146    |
| Injection                                         | Nominal Value           | Unit              |             |
| Drying Temperature                                | 79.4                    | °C                |             |
| Drying Time                                       | 2.0 to 4.0              | hr                |             |
| Suggested Max Moisture                            | 0.20                    | %                 |             |
| Rear Temperature                                  | 238 to 282              | °C                |             |
| Middle Temperature                                | 232 to 277              | °C                |             |
| Front Temperature                                 | 227 to 271              | °C                |             |
| Nozzle Temperature                                | 227 to 293              | °C                |             |
| Processing (Melt) Temp                            | 227 to 293              | °C                |             |
| Mold Temperature                                  | 71.1 to 93.3            | °C                |             |
| Injection Pressure                                | 34.5 to 138             | MPa               |             |
| Back Pressure                                     | 0.345                   | MPa               |             |

Screw Speed

30 to 120

rpm

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#### Recommended distributors for this material

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