

# Staramide B28H

Polyamide 6  
Eurostar Engineering Plastics

Message:  
Staramide B28H is a Heat Stabilized, Unreinforced Polyamide 6 Injection Molding Resin

| General Information                           |                   |                   |                 |
|-----------------------------------------------|-------------------|-------------------|-----------------|
| Additive                                      | Heat Stabilizer   |                   |                 |
| Features                                      | Heat Stabilized   |                   |                 |
| RoHS Compliance                               | RoHS Compliant    |                   |                 |
| Processing Method                             | Injection Molding |                   |                 |
| Physical                                      | Nominal Value     | Unit              | Test Method     |
| Density                                       | 1.14              | g/cm <sup>3</sup> | ISO 1183        |
| Molding Shrinkage - Flow <sup>1</sup>         | 1.1 to 1.5        | %                 | Internal Method |
| Water Absorption                              |                   |                   | ISO 62          |
| Saturation, 23°C                              | 10                | %                 |                 |
| Equilibrium, 23°C, 50% RH                     | 2.6               | %                 |                 |
| Hardness                                      | Nominal Value     | Unit              | Test Method     |
| Rockwell Hardness (R-Scale)                   | 120               |                   | ISO 2039-2      |
| Mechanical                                    | Nominal Value     | Unit              | Test Method     |
| Tensile Modulus                               | 2700              | MPa               | ISO 527-2/1     |
| Tensile Stress (Yield)                        | 70.0              | MPa               | ISO 527-2/50    |
| Tensile Strain                                |                   |                   | ISO 527-2/50    |
| Yield                                         | 3.5               | %                 |                 |
| Break                                         | > 15              | %                 |                 |
| Flexural Modulus <sup>2</sup>                 | 2400              | MPa               | ISO 178         |
| Flexural Stress                               | 85.0              | MPa               | ISO 178         |
| Impact                                        | Nominal Value     | Unit              | Test Method     |
| Charpy Notched Impact Strength <sup>3</sup>   |                   |                   | ISO 179/1eA     |
| -30°C                                         | 4.0               | kJ/m <sup>2</sup> |                 |
| 23°C                                          | 5.0               | kJ/m <sup>2</sup> |                 |
| Charpy Unnotched Impact Strength <sup>4</sup> |                   |                   | ISO 179/1eU     |
| -30°C                                         | > 100             | kJ/m <sup>2</sup> |                 |
| 23°C                                          | > 270             | kJ/m <sup>2</sup> |                 |
| Notched Izod Impact Strength <sup>5</sup>     |                   |                   | ISO 180/1A      |
| -40°C                                         | 3.0               | kJ/m <sup>2</sup> |                 |
| -20°C                                         | 4.0               | kJ/m <sup>2</sup> |                 |
| 23°C                                          | 5.0               | kJ/m <sup>2</sup> |                 |
| Thermal                                       | Nominal Value     | Unit              | Test Method     |
| Heat Deflection Temperature <sup>6</sup>      |                   |                   |                 |

|                                         |               |          |                |
|-----------------------------------------|---------------|----------|----------------|
| 0.45 MPa, Unannealed, 100 mm Span       | 180           | °C       | ISO 75-2/Be    |
| 1.8 MPa, Unannealed, 100 mm Span        | 60.0          | °C       | ISO 75-2/Ae    |
| Vicat Softening Temperature             |               |          |                |
| --                                      | 210           | °C       | ISO 306/B50    |
| --                                      | 200           | °C       | ISO 306/B120   |
| Ball Pressure Test <sup>7</sup> (125°C) | Pass          |          | IEC 60695-10-2 |
| CLTE                                    |               |          | ISO 11359-2    |
| Flow : 23 to 60°C                       | 8.0E-5        | cm/cm/°C |                |
| Transverse : 23 to 60°C                 | 8.0E-5        | cm/cm/°C |                |
| Thermal Conductivity                    | 0.29          | W/m/K    | ISO 8302       |
| RTI Elec                                | 65.0          | °C       | UL 746         |
| RTI Imp                                 | 65.0          | °C       | UL 746         |
| RTI Str                                 | 65.0          | °C       | UL 746         |
| Electrical                              | Nominal Value | Unit     | Test Method    |
| Surface Resistivity <sup>8</sup>        | > 1.0E+16     | ohms     | IEC 60093      |
| Volume Resistivity                      | > 1.0E+16     | ohms·cm  | IEC 60093      |
| Electric Strength (3.20 mm, in Oil)     | 16            | kV/mm    | IEC 60243-1    |
| Relative Permittivity                   |               |          | IEC 60250      |
| 50 Hz                                   | 3.30          |          |                |
| 60 Hz                                   | 3.30          |          |                |
| 1 MHz                                   | 3.00          |          |                |
| Dissipation Factor                      |               |          | IEC 60250      |
| 50 Hz                                   | 5.8E-3        |          |                |
| 60 Hz                                   | 5.8E-3        |          |                |
| 1 MHz                                   | 0.018         |          |                |
| Comparative Tracking Index              |               |          | IEC 60112      |
| --                                      | 600           | V        |                |
| Solution B                              | 600           | V        |                |
| Flammability                            | Nominal Value | Unit     | Test Method    |
| Flame Rating                            |               |          | UL 94          |
| 0.750 mm                                | HB            |          |                |
| 3.00 mm                                 | HB            |          |                |
| Oxygen Index                            | 24            | %        | ISO 4589-2     |
| Injection                               | Nominal Value | Unit     |                |
| Drying Temperature                      | 75.0 to 85.0  | °C       |                |
| Drying Time                             | 4.0 to 6.0    | hr       |                |
| Suggested Max Moisture                  | 0.20          | %        |                |
| Rear Temperature                        | 230 to 240    | °C       |                |
| Middle Temperature                      | 240 to 250    | °C       |                |
| Front Temperature                       | 250 to 260    | °C       |                |
| Processing (Melt) Temp                  | 250 to 260    | °C       |                |
| Mold Temperature                        | 60.0 to 80.0  | °C       |                |

| NOTE |                 |
|------|-----------------|
| 1.   | Tensile Bar     |
| 2.   | 2.0 mm/min      |
| 3.   | 80*10*4 sp=62mm |
| 4.   | 80*10*4 sp=62mm |
| 5.   | 80*10*4         |
| 6.   | 120*10*4        |
| 7.   | 125°C ±2°C      |
| 8.   | ROA             |

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### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

