

# Niretan B AE/V0

Polyamide 6 flame retardant as per UL 94 V0 at 1.6 mm rating

|                 | Properties                        | Test condition | Method      | Unit                             | Value                              |
|-----------------|-----------------------------------|----------------|-------------|----------------------------------|------------------------------------|
| Mechanical      | Flexural Maximum Stress           | 1,3 mm/min     | ASTM D790   | MPa                              | 120/60                             |
|                 | Flexural Elastic Modulus          | 1,3 mm/min     | ASTM D790   | MPa                              | 2800/800                           |
|                 | Rockwell Hardness                 |                | ASTM D785   | R-scale                          | 120/102                            |
|                 | Izod Notched Impact Strength      | 23°C/3,2 mm    | ASTM D256   | J/m                              | 50/600                             |
|                 | Izod Notched Impact Strength      | -20°C/3mm      | ASTM D256   | J/m                              | 45/500                             |
|                 | Elongation                        | 5mm/min        | ASTM D638   | %                                | >60/>200                           |
|                 | Tensile Stress at Break           | 5 mm/min       | ASTM D638   | MPa                              | 60/30                              |
|                 | Tensile Stress at Yield           | 5 mm/min       | ASTM D638   | MPa                              | 80/40                              |
| Thermal         | Heat Distortion Temperature H.D.T | 1.82 MPa       | ASTM D648   | °C                               | 70                                 |
|                 | Linear Expansion Coefficient      | 23°C/55°C      | ISO 11359-2 | 10 <sup>-5</sup> K <sup>-1</sup> | 7,5                                |
| Flame Behaviour | Glow Wire Temperature (G.W.T)     | S=2.0 mm       | IEC 695-2-1 | °C                               | 960                                |
|                 | UL 94 Rating                      | S=1.6 mm       | UL 94       | class                            | V0                                 |
|                 | UL 94 Rating                      | S=3.2 mm       | UL 94       | class                            | V0                                 |
| Electrical      | Dielectric Strength               | S=1 mm         | IEC 60243-1 | KV/mm                            | 60/40                              |
|                 | Relative Permittivity             | 1 Mhz = secco  | IEC 60250   | -                                | 3,8                                |
|                 | Dissipation Factor                | 1 Mhz = secco  | IEC 60250   | -                                | 0,03                               |
|                 | Surface Resistivity               | secco          | IEC 60093   | Ω                                | 10 <sup>12</sup> /10 <sup>10</sup> |
|                 | Volume Resistivity                | secco          | IEC 60093   | Ω cm                             | 10 <sup>15</sup> /10 <sup>11</sup> |
| Physical        | Density                           | 23°C           | ASTM D792   | g/cm <sup>3</sup>                | 1,16                               |



| Properties                          | Test condition | Method    | Unit | Value   |
|-------------------------------------|----------------|-----------|------|---------|
|                                     |                |           |      | 9/10    |
| Humidity Absorption from Atmosphere | 23°C - 50% HR  | ASTM D570 | %    | 25/3,4  |
| Cristalline Melting Temperature     | DSC            | -         | °C   | 215/220 |

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