

# Novamid® 1010N2

## PA6 FR(30)

Injection Molding, Flame Retardant (halogen free)

| Properties                                   | Typical Data      | Unit              | Test Method       |
|----------------------------------------------|-------------------|-------------------|-------------------|
| <b>Rheological properties</b>                | <b>dry / cond</b> |                   |                   |
| Molding shrinkage [parallel]                 | 1 / *             | %                 | Sim. to ISO 294-4 |
| Molding shrinkage [normal]                   | 1.1 / *           | %                 | Sim. to ISO 294-4 |
| <b>Mechanical properties</b>                 | <b>dry / cond</b> |                   |                   |
| Tensile modulus                              | 3600 / 1500       | MPa               | ISO 527-1/-2      |
| Yield stress                                 | - / 50            | MPa               | ISO 527-1/-2      |
| Yield strain                                 | - / 22            | %                 | ISO 527-1/-2      |
| Nominal strain at break                      | - / >50           | %                 | ISO 527-1/-2      |
| Stress at break                              | 80 / -            | MPa               | ISO 527-1/-2      |
| Strain at break                              | 3.2 / -           | %                 | ISO 527-1/-2      |
| Flexural modulus                             | 3600 / 1400       | MPa               | ISO 178           |
| Flexural strength                            | 120 / 47          | MPa               | ISO 178           |
| Charpy impact strength (+23°C)               | 90 / N            | kJ/m <sup>2</sup> | ISO 179/1eU       |
| Charpy notched impact strength (+23°C)       | 3 / 12            | kJ/m <sup>2</sup> | ISO 179/1eA       |
| <b>Thermal properties</b>                    | <b>dry / cond</b> |                   |                   |
| Temp. of deflection under load (1.80 MPa)    | 70 / *            | °C                | ISO 75-1/-2       |
| Temp. of deflection under load (0.45 MPa)    | 192 / *           | °C                | ISO 75-1/-2       |
| Coeff. of linear therm. expansion (parallel) | 0.6 / *           | E-4/°C            | ISO 11359-1/-2    |
| Coeff. of linear therm. expansion (normal)   | 0.6 / *           | E-4/°C            | ISO 11359-1/-2    |
| Burning Behav. at 1.5 mm nom. thickn.        | V-0 / *           | class             | IEC 60695-11-10   |
| Thickness tested                             | 1.5 / *           | mm                | IEC 60695-11-10   |
| Burning Behav. at 3.0 mm nom. thickn.        | V-0 / *           | class             | IEC 60695-11-10   |



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| Properties                        | Typical Data      | Unit              | Test Method     |
|-----------------------------------|-------------------|-------------------|-----------------|
| Thickness tested                  | 3 / *             | mm                | IEC 60695-11-10 |
| Glow Wire Flammability Index GWFI | 960 / -           | °C                | IEC 60695-2-12  |
| GWFI (Thickness (1) tested)       | 3 / -             | mm                | IEC 60695-2-12  |
| <b>Electrical properties</b>      | <b>dry / cond</b> |                   |                 |
| Relative permittivity (100Hz)     | 4 / -             | -                 | IEC 62631-2-1   |
| Relative permittivity (1 MHz)     | 4 / -             | -                 | IEC 62631-2-1   |
| Dissipation factor (100 Hz)       | 80 / -            | E-4               | IEC 62631-2-1   |
| Dissipation factor (1 MHz)        | 190 / -           | E-4               | IEC 62631-2-1   |
| Volume resistivity                | >1E13 / -         | Ohm*m             | IEC 62631-3-1   |
| Surface resistivity               | - / 2E14          | Ohm               | IEC 62631-3-2   |
| Electric strength                 | 26 / -            | kV/mm             | IEC 60243-1     |
| Comparative tracking index        | 575 / -           | V                 | IEC 60112       |
| <b>Other properties</b>           | <b>dry / cond</b> |                   |                 |
| Humidity absorption               | 3 / *             | %                 | Sim. to ISO 62  |
| Density                           | 1160 / -          | kg/m <sup>3</sup> | ISO 1183        |

