

**Ultramid® A3X3G5**  
PA66-GF25

BASF

| Rheological properties     | dry / cond | Unit      | Test Standard |
|----------------------------|------------|-----------|---------------|
| <b>ISO Data</b>            |            |           |               |
| Melt volume-flow rate, MVR | 40 / *     | cm³/10min | ISO 1133      |
| Temperature                | 275 / *    | °C        | -             |
| Load                       | 5 / *      | kg        | -             |

| Mechanical Properties                   | dry / cond  | Unit  | Test Standard |
|-----------------------------------------|-------------|-------|---------------|
| <b>ISO Data</b>                         |             |       |               |
| Tensile Modulus                         | 8500 / 6000 | MPa   | ISO 527       |
| Stress at Break                         | 140 / 100   | MPa   | ISO 527       |
| Strain at Break                         | 3 / 4.5     | %     | ISO 527       |
| Tensile Creep Modulus, 1000h            | * / 3500    | MPa   | ISO 899-1     |
| Impact Strength (Charpy), +23°C         | 70 / 75     | kJ/m² | ISO 179/1eU   |
| Impact Strength (Charpy), -30°C         | 65 / -      | kJ/m² | ISO 179/1eU   |
| Notched Impact Strength (Charpy), +23°C | 13 / 18     | kJ/m² | ISO 179/1eA   |
| Flexural Modulus (23°C)                 | 7100 / -    | MPa   | ISO 178       |
| Notched Impact Strength (Izod), 23°C    | 11 / 17     | kJ/m² | ISO 180/1A    |

| Thermal Properties                          | dry / cond | Unit  | Test Standard  |
|---------------------------------------------|------------|-------|----------------|
| <b>ISO Data</b>                             |            |       |                |
| Melting Temperature (10°C/min)              | 260 / *    | °C    | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa)   | 250 / *    | °C    | ISO 75-1/-2    |
| Temp. of deflection under load (0.45 MPa)   | 250 / *    | °C    | ISO 75-1/-2    |
| Coeff. of Linear Therm. Expansion, parallel | 30 / *     | E-6/K | ISO 11359-1/-2 |
| Coeff. of Linear Therm. Expansion, normal   | 70 / *     | E-6/K | ISO 11359-1/-2 |
| Burning Behav. at 1.5 mm Nom. Thickn.       | V-1 / *    | class | UL 94          |
| Thickness tested                            | 1.6 / *    | mm    | -              |

| Electrical Properties       | dry / cond  | Unit  | Test Standard |
|-----------------------------|-------------|-------|---------------|
| <b>ISO Data</b>             |             |       |               |
| Relative permittivity, 1MHz | 3.7 / 5     | -     | IEC 62631-2-1 |
| Dissipation Factor, 1MHz    | 200 / 1000  | E-4   | IEC 62631-2-1 |
| Volume Resistivity          | 1E13 / 1E10 | Ohm*m | IEC 62631-3-1 |
| Surface Resistivity         | * / 1E10    | Ohm   | IEC 62631-3-2 |
| Electric Strength           | 33 / 30     | kV/mm | IEC 60243-1   |
| Comparative tracking index  | 575 / -     | -     | IEC 60112     |

| Other Properties    | dry / cond | Unit  | Test Standard  |
|---------------------|------------|-------|----------------|
| <b>ISO Data</b>     |            |       |                |
| Water Absorption    | 6 / *      | %     | Sim. to ISO 62 |
| Humidity absorption | 1.4 / *    | %     | Sim. to ISO 62 |
| Density             | 1340 / -   | kg/m³ | ISO 1183       |

| Material Specific Properties | dry / cond | Unit  | Test Standard       |
|------------------------------|------------|-------|---------------------|
| <b>ISO Data</b>              |            |       |                     |
| Viscosity number             | 140 / *    | cm³/g | ISO 307, 1157, 1628 |

**Characteristics**

**Processing**

Injection Molding, Other Extrusion

**Special Characteristics**

Flame retardant

**Delivery form**

Pellets

**Applications**

Automotive