

EXPERIMENTAL DATASHEET

TECHNYL 4EARTH A2E 236 BK  
(Previously ECONAMID PLUS 66I2 BK)

Polyamide 66, impact modified, for injection moulding, black

General

|                       |                     |
|-----------------------|---------------------|
| Feature               | Impact modified     |
| Polymer type          | PA66 (Polyamide 66) |
| Processing technology | Injection molding   |
| Certification         | RoHS                |

Product identification

|                       |                          |
|-----------------------|--------------------------|
| ISO 1043 abbreviation | PA66-I                   |
| ISO 16396 designation | PA66-I,(R>50),M1,S14-020 |

|                     | Condition      | Standard | Unit              | Value |
|---------------------|----------------|----------|-------------------|-------|
| Density             |                | ISO 1183 | g/cm <sup>3</sup> | 1.08  |
| Humidity absorption | T=23°C, 50% RH | ISO 62   | %                 | 1.8   |
| Water absorption    | 24 hr, 23°C    | ISO 62   | %                 | 7     |

Physical properties

|                                       |           |              |                   | dam / cond.* |
|---------------------------------------|-----------|--------------|-------------------|--------------|
| Tensile modulus                       | 1 mm/min  | ISO 527-1/-2 | MPa               | 2350 / -     |
| Strain at break                       | 50 mm/min | ISO 527-1/-2 | %                 | 50 / -       |
| Yield stress                          | 50 mm/min | ISO 527-1/-2 | MPa               | 65 / -       |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 15 / -       |
| Izod notched impact strength, +23°C   | +23°C     | ISO 180/1A   | kJ/m <sup>2</sup> | 14 / -       |
| Rockwell hardness                     |           | ISO 2039/2   | ScaleR            | 110 / -      |

Thermal properties

|  |              |             |    |     |
|--|--------------|-------------|----|-----|
| Melting temperature, 10°C/min            |              | ISO 11357-1 | °C | 262 |
| Temp. of deflection under load, 0.45 MPa | 0.45 MPa     | ISO 75      | °C | 175 |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa     | ISO 75      | °C | 65  |
| Vicat softening temperature              | 50°C/h - 50N | ISO 306     | °C | 225 |

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|------------------------------|-----------|---------------|-------|--------|
| <b>Electrical properties</b> |           |               |       |        |
| Volume resistivity           |           | IEC 62631-3-1 | ohm.m | 1E+016 |
| Surface resistivity          |           | IEC 62631-3-1 | ohm   | 1E+014 |

**Burning behaviour**

|                                     |         |           |  |              |
|-------------------------------------|---------|-----------|--|--------------|
| Flammability, 0.75 mm               | 0.75 mm | UL 94     |  | HB           |
| Burning rate, FMVSS, Thickness 1 mm |         | FMVSS 302 |  | < 100 mm/min |

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for black products.  
\*: conditioned according to ISO 1110

**Processing conditions**

|                               |   |
|-------------------------------|---|
| Drying temperature/time       | 75-85°C / 2-4h (with dew point of dried air < -30 °C) |
| Recommended melt temperature  | 270 - 290 °C  |
| Recommended mould temperature | 40 - 80 °C  |

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part. These TECHNYL grades are not recommended for injection moulding hot runner systems with a diameter below 1mm.

**Disclaimer**

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