

TECHNICAL DATA SHEET

## TECHNYL XA 1081 BK 2N

TECHNYL XA 1081 BK 2N is suitable for extrusion of pipes with large diameter and thickness.

### General

|                       |                         |                      |  |
|-----------------------|-------------------------|----------------------|--|
| Polymer type          | PA66                    |                      |  |
| Certifications        | RoHS                    | EC 1907/2006 (REACH) |  |
| Applications          | industrial applications | piping               |  |
| Colors available      | black                   |                      |  |
| Forms                 | pellets                 |                      |  |
| Processing technology | extrusion               | extrusion of pipes   |  |

### Product identification

|                       |                     |  |  |
|-----------------------|---------------------|--|--|
| ISO 1043 abbreviation | PA66-GF30           |  |  |
| ISO 16396 designation | PA66-GF30,E,S14-080 |  |  |

| Condition | Standard | Unit | Value |
|-----------|----------|------|-------|
|-----------|----------|------|-------|

### Physical properties

|                     | Condition      | Standard | Unit              | Value     |
|---------------------|----------------|----------|-------------------|-----------|
| Density             |                | ISO 1183 | g/cm <sup>3</sup> | 1.37      |
| Humidity absorption | T=23°C, 50% RH | ISO 62   | %                 | 3.0 - 3.2 |
| Water absorption    | 24 hr, 23°C    | ISO 62   | %                 | 1.2 - 1.3 |

|                                       | Condition | Standard     | Unit              | Value               |
|---------------------------------------|-----------|--------------|-------------------|---------------------|
| <b>Mechanical properties</b>          |           |              |                   | <b>dam / cond.*</b> |
| Tensile modulus                       | 1 mm/min  | ISO 527-1/-2 | MPa               | 8500 / -            |
| Stress at break                       |           | ISO 527-1/-2 | MPa               | 145 / -             |
| Strain at break                       |           | ISO 527-1/-2 | %                 | 3 / -               |
| Flexural modulus, ISO 178             | 2 mm/min  | ISO 178      | MPa               | 7500 / -            |
| Flexural strength, ISO 178            | 2 mm/min  | ISO 178      | MPa               | 205 / -             |
| Charpy impact strength, +23°C         | +23°C     | ISO 179/1eU  | kJ/m <sup>2</sup> | 65 / -              |
| Charpy notched impact strength, +23°C | +23°C     | ISO 179/1eA  | kJ/m <sup>2</sup> | 13 / -              |
| Izod impact strength, +23°C           | +23°C     | ISO 180/1U   | kJ/m <sup>2</sup> | 60 / -              |

\*: **conditioned according to ISO 1110**

|  | Condition | Standard    | Unit | Value |
|--|-----------|-------------|------|-------|
| <b>Thermal properties</b>                |           |             |      |       |
| Melting temperature, 10°C/min            |           | ISO 11357-1 | °C   | 260   |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa  | ISO 75      | °C   | 246   |

|                                     | Condition | Standard  | Unit | Value        |
|-------------------------------------|-----------|-----------|------|--------------|
| <b>Burning behaviour</b>            |           |           |      |              |
| Flammability, 1.5 mm                | 1.5 mm    | UL 94     |      | HB           |
| Burning rate, FMVSS, Thickness 1 mm |           | FMVSS 302 |      | <100 mm*/min |

|  |              |
|--|--------------|
| <b>Processing conditions</b>               |              |
| Drying temperature/time                    | 80           |
| Suggested max moisture                     | 0.2 %        |
| Feed zone temperature for extrusion        | 250 - 260 °C |
| Compression zone temperature for extrusion | 255 - 260 °C |
| Front zone temperature for extrusion       | 260 - 265 °C |