

TECHNICAL DATA SHEET

TECHNYL A 216 V30 RD 2440 CF  
(Previously TECHNYL A 216 V30 RED 2440 CF)

TECHNYL A 216 V30 RD 2440 CF is a polyamide 66, reinforced with 30% of glass fiber, for injection moulding. This grade offers an excellent combination between thermal and mechanical properties.

General

|                       |                              |                  |
|-----------------------|------------------------------|------------------|
| Polymer type          | PA66 (Polyamide 66)          |                  |
| Processing technology | Injection molding            |                  |
| Certification         | RoHS<br>EC 1907/2006 (REACH) | UL-Yellow Card   |
| Applications          | Outdoor Applications         | Sport            |
| Colors available      | Black<br>Grey<br>Red         | Natural<br>White |
| Forms                 | Pellets                      |                  |

Product identification

|                       |                       |
|-----------------------|-----------------------|
| ISO 1043 abbreviation | PA66-GF30             |
| ISO 16396 designation | PA66,GF300,M1,S14-090 |

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

Physical properties

|                              |             |          |       |      |
|------------------------------|-------------|----------|-------|------|
| Density                      |             | ISO 1183 | g/cm³ | 1.37 |
| Water absorption             | 24 hr, 23°C | ISO 62   | %     | 0.8  |
| Water absorption, saturation |             |          | %     | 5.3  |


Mechanical properties

dam / cond.\*

|                                       |          |              |       |             |
|---------------------------------------|----------|--------------|-------|-------------|
| Tensile modulus                       | 1 mm/min | ISO 527-1/-2 | MPa   | 9500 / 6800 |
| Stress at break                       |          | ISO 527-1/-2 | MPa   | 150 / 100   |
| Strain at break                       |          | ISO 527-1/-2 | %     | 2.6 / 5.6   |
| Flexural modulus, ISO 178             | 2 mm/min | ISO 178      | MPa   | 8400 / 5900 |
| Flexural strength, ISO 178            | 2 mm/min | ISO 178      | MPa   | 225 / 160   |
| Charpy impact strength, +23°C         | +23°C    | ISO 179/1eU  | kJ/m² | 45 / 55     |
| Charpy notched impact strength, +23°C | +23°C    | ISO 179/1eA  | kJ/m² | 5.5 / 7     |
| Izod notched impact strength, +23°C   | +23°C    | ISO 180/1A   | kJ/m² | 5 / 6       |

|  | Condition | Standard    | Unit | Value |
|--|-----------|-------------|------|-------|
| <b>Thermal properties</b>                |           |             |      |       |
| Melting temperature, 10°C/min            |           | ISO 11357-1 | °C   | 262   |
| Temp. of deflection under load, 0.45 MPa | 0.45 MPa  | ISO 75      | °C   | 260   |
| Temp. of deflection under load, 1.80 MPa | 1.80 MPa  | ISO 75      | °C   | 255   |

|                              |      |               |       |        |
|------------------------------|------|---------------|-------|--------|
| <b>Electrical properties</b> |      |               |       |        |
| Volume resistivity           |      | IEC 62631-3-1 | ohm.m | 1E+013 |
| Surface resistivity          |      | IEC 62631-3-1 | ohm   | 6E+015 |
| Dielectric strength          | 1 mm | IEC 60243-1   | kV/mm | 22     |

|   |  |           |   |      |
|---|--|-----------|---|------|
| <b>Burning behaviour</b>  |  |           |   |      |
| UL Yellow Card availability  | Click here to have access to the UL Yellow Card → <a href="#">QMFZ2.E44716</a> |           |   |      |
| Flammability, 0.75 mm   | 0.75 mm  | UL 94     |   | HB   |
| Flammability, 1.5 mm  | 1.5 mm   | UL 94     |   | HB   |
| Flammability, 3.0 mm  | 3.0 mm   | UL 94     |   | HB   |
| Oxygen index  |  |           | % | 23   |
| Burning rate, FMVSS, Thickness 1 mm   |  | FMVSS 302 |   | <100 |
| *: conditioned according to ISO 1110  |  |           |   |      |

|                               |              |
|-------------------------------|--------------|
| <b>Processing conditions</b>  |              |
| Drying temperature/time       | 80°C         |
| Suggested max moisture        | 0.2 %        |
| Rear temperature              | 270 - 280 °C |
| Middle temperature            | 275 - 285 °C |
| Front temperature             | 280 - 290 °C |
| Recommended mould temperature | 70 - 100 °C  |

### Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

### Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.

## Disclaimer

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