

## TECHNYL® A 216 V20

Product Datasheet - June 2007

### Description

Polyamide 66, reinforced with 20% of glass fibre, for injection moulding.

### Product Applications

TECHNYL® A 216 V20 is used in all sectors of industry, offering an excellent combination between thermal and mechanical properties.

This grade is used in:

- Automotive industry
- Manufacture of components for electrical tools
- Transport and building.

This product is available in natural and black, and in a wide range of standard colours.

### Processing

The material is supplied in airtight bags, ready for use. In the case that the virgin material has absorbed moisture, it must be dried to a final moisture content of less than 0,2% with a dehumidified air drying equipment at approx 80°C.

Recommended moulding conditions:

Barrel temperatures:

- feed zone 260 - 270°C
- compression zone 270 - 280°C
- front zone 280 - 290°C

Mould temperatures: 60 at 80°C

For more detailed information, please refer to the technical sheet Injection moulding.

### Safety

Please refer to the Safety Data Sheet 83J63HC68FS

# TECHNYL® A 216 V20

The values of properties are for natural grade.

| Properties  | Standards        | Unit     | Values      |         |
|---|------------------|----------|-------------|---------|
|   |                  |          | d.a.m*.     | Cond.** |
| <b>Physical</b>   |                  |          |             |         |
| Water absorption (24 h at 23°C)                           | ISO 62           | %        | 1           | -       |
| Density   | ISO 1183-A       | g/cm3    | 1.29        | -       |
| Molding shrinkage Parallel (1) (RHODIA-EP)                | RHODIA-EP        | %        | 0.70        | -       |
| Molding shrinkage normal or perpendicular (1) (Rhodia EP) | RHODIA-EP        | %        | 0.95        | -       |
| Molding Shrinkage Isotropy                                | RHODIA-EP        |          | 0.74        | -       |
| <b>Mechanical</b>   |                  |          |             |         |
| Tensile modulus   | ISO 527 type 1 A | MPa      | 7400        | 5300    |
| Elongation at break                                       | ISO 527 type 1 A | %        | 4           | 5       |
| Tensile strength at break                                 | ISO 527 type 1 A | MPa      | 145         | 100     |
| Flexural modulus  | ISO 178          | MPa      | 6400        | 4200    |
| Charpy notched impact strength                            | ISO 179/1eA      | kJ/m2    | 8           | 10      |
| Charpy unnotched impact strength                          | ISO 179/1eU      | kJ/m2    | 48          | 79      |
| Izod notched impact strength                              | ISO 180/1A       | kJ/m2    | 7           | 13      |
| <b>Flamability</b>  |                  |          |             |         |
| Flammability UL 94 (Thickness 1,6 mm)                     | ISO 1210/UL 94   |          | HB          | -       |
| Glow wire flammability index (thickness = 1,6)            | IEC 60695-2-12   | °C       | 650         | -       |
| Glow wire ignition temperature (thickness = 1,6)          | IEC 60695-2-13   | °C       | 650         | -       |
| Limit Oxygen index  | ISO 4589         |          | 23          | -       |
| <b>Thermal</b>  |                  |          |             |         |
| Melting Temperature                                       | ISO 11357        | °C       | 263         | -       |
| Heat deflection temperature, 1,8 Mpa                      | ISO 75/Af        | °C       | 250         | -       |
| Coef. of Linear thermal expansion parallel (23°C to 85°C) | ISO 11359        | E-5 / °C | 3           | -       |
| <b>Electrical</b>   |                  |          |             |         |
| Relative permittivity                                     | IEC 60250        |          | 3.70        | 4       |
| Dissipation factor  | IEC 60250        |          | 0.01        | 0.11    |
| Volume resistivity  | IEC 60093        | Ohm.cm   | 10E14       | 20E12   |
| Surface resistivity                                       | IEC 60093        | Ohm      | 60E13       | 10E11   |
| Dielectric strength                                       | IEC 60243        | kV/mm    | 32          | 28      |
| Comparative tracking index sol. A                         | IEC 60112        | Volt     | 600         | 600     |
| Comparative tracking index sol. B                         | IEC 60112        | Volt     | 525         | 525     |
| <b>Specific</b>   |                  |          |             |         |
| IMDS id number  | Rhodia           |          | 4607465 / 2 | -       |

## Identification Code : >PA66-GF20<

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Engineering Plastics

CHALLENGING BOUNDARIES