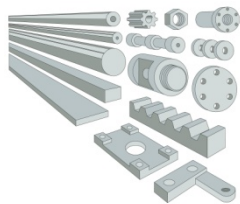


**PA6 G MoS<sub>2</sub>  
[OMNIAMID G Moly]**
GENERAL

|                                     |                        |          |           |
|-------------------------------------|------------------------|----------|-----------|
| Density                             | 1,16 g/cm <sup>3</sup> | ISO 1183 | DIN 53479 |
| Water absorption in air 50% r.h.    | 2,4 %                  | ISO 62   | DIN 53715 |
| Absorption 23-C in water-saturation | 6,7 %                  | ISO 62   | DIN 53495 |

MECHANICAL PROPERTIES

|                                  |                              |           |          |
|----------------------------------|------------------------------|-----------|----------|
| Tensile stress at yield at break | 50 (80) N/mm <sup>2</sup>    | ISO 527   | DIN53455 |
| Elongation at break              | 100 (20) %                   | ISO 527   | DIN53455 |
| Tensile Modulus of elasticity    | 1650 (3400)N/mm <sup>2</sup> | ISO 527   | DIN53455 |
| Compression test 1% strain 1000h | 6 (20) N/mm <sup>2</sup>     | ISO 899   | DIN53444 |
| Impact strength Charpy 7,5 J     | no break                     | ISO R179  | DIN53453 |
| Notched impact strength Charpy   | 23 (5) KJ/ mm <sup>2</sup>   | ISO179/3C | DIN53453 |
| Ball indentation hardness        | 95 (165) N/mm <sup>2</sup>   | ISO2039.1 | DIN53456 |
| Rockwell hardness (dry)          | M84                          | ISO2039.2 | DIN53456 |

|  |     |          |           |
|--|-----|----------|-----------|
| Coefficient of friction to steel <sup>[12]</sup> | 0,4 | ISO 8295 | DIN 53375 |
|--|-----|----------|-----------|

THERMAL PROPERTIES

|  |                                       |             |           |
|--|---------------------------------------|-------------|-----------|
| Melting point  | 220 °C                                | ISO 3146    |           |
| Thermal conductivity                                       | 0,28 W/(km)                           | ISO 22007.2 | DIN 52612 |
| Deformation at temperature HDT <sup>[15]</sup>             | 96 °C                                 | ISO75       | DIN 53461 |
| Linear expansion coefficient 23-60°C                       | 80 x 10 <sup>-6</sup> K <sup>-1</sup> | ISO 11359   | DIN 53752 |
| Operating temperature continuously <sup>[17]</sup>         | 100 °C                                |             |           |
| Operating temperature short period-no load <sup>[18]</sup> | 160 °C                                |             |           |
| Minimum operating temperature <sup>[19]</sup>              | -30 °C                                |             |           |
| Flammability UL 94<br>(3-6 mm thickness)                   | HB                                    |             | UL94      |
| Oxygen index (LOI)   | 25 %                                  | ISO4589     | DIN 22117 |

ELECTRICAL PROPERTIES

|   |                            |         |           |
|---|----------------------------|---------|-----------|
| Dielectric constant<br>at 1 MHz.            | 7 (3,7)                    | ISO 250 | DIN 53483 |
| Dielectric strength                         | 30 KV/mm                   | ISO 243 | DIN 53481 |
| Volume resistivity                          | $10^{12} \Omega \text{cm}$ | ISO 93  | DIN 53482 |
| Dissipation factor<br>$\tan \Delta$ at 1MHz | 0,05                       | ISO 250 | DIN 53483 |

N.B.

- Figures relate to specimen conditioned at 23°C and 50% RH. Figures between brackets relate to dry specimen. Figures for materials marked with \* can change according to their moisture content.

- Figures refer to un-coloured specimen either injection moulded or machined in the easiest way. Tests made on specimen of different sizes give slightly different results.

- [12] Test on ground steel dry specimen load =0,05 N/mm<sup>2</sup> speed=0,6 m/s.

- [15] Deformation at temperature. HDT at 1,8 N/mm<sup>2</sup>

- [17] Operating temperature continuously 5000h From 23°C upwards the materials' features change in a non-uniform and disproportional way due to the heat. The quoted limits are indicative and based on a tensile stress of 50% of the value at 23° C.

- [18] Operating temperature short period (no load)

- [19] The mechanical features decrease with a reduction in temperature and are influenced also by other factors (moisture, etc.). The quoted value does not take into consideration impact conditions or heavy loads.

- A Amorphous

- All values and information provided are based on information currently in our possession and/or results archived from tests conducted in our laboratories. They are given in good faith and are not legally binding. For any particular application, the technical staff of Omnia Plastica spa is at your disposal to assist with solving your problem.