

## Akulon® S223-G6

PA66-GF30

30% Glass Reinforced

Print Date: 2017-11-03

| Properties                                   | Typical Data | Unit              | Test Method       |
|--|--------------|-------------------|-------------------|
| <b>Rheological properties</b> dry / cond     |              |                   |                   |
| Molding shrinkage [parallel]                 | 0.2 / *      | %                 | Sim. to ISO 294-4 |
| Molding shrinkage [normal]                   | 1.2 / *      | %                 | Sim. to ISO 294-4 |
| <b>Mechanical properties</b> dry / cond      |              |                   |                   |
| Tensile modulus                              | 9500 / 7500  | MPa               | ISO 527-1/-2      |
| Stress at break                              | 190 / 140    | MPa               | ISO 527-1/-2      |
| Strain at break                              | 3 / 5        | %                 | ISO 527-1/-2      |
| Flexural modulus                             | 8400 / -     | MPa               | ISO 178           |
| Flexural strength                            | 250 / -      | MPa               | ISO 178           |
| Charpy impact strength (+23°C)               | 80 / 100     | kJ/m <sup>2</sup> | ISO 179/1eU       |
| Charpy impact strength (-30°C)               | 70 / 70      | kJ/m <sup>2</sup> | ISO 179/1eU       |
| Charpy notched impact strength (+23°C)       | 12 / 20      | kJ/m <sup>2</sup> | ISO 179/1eA       |
| Charpy notched impact strength (-30°C)       | 10 / 10      | kJ/m <sup>2</sup> | ISO 179/1eA       |
| <b>Thermal properties</b> dry / cond         |              |                   |                   |
| Melting temperature (10°C/min)               | 260 / *      | °C                | ISO 11357-1/-3    |
| Temp. of deflection under load (1.80 MPa)    | 245 / *      | °C                | ISO 75-1/-2       |
| Temp. of deflection under load (0.45 MPa)    | 260 / *      | °C                | ISO 75-1/-2       |
| Coeff. of linear therm. expansion (parallel) | 0.2 / *      | E-4/°C            | ISO 11359-1/-2    |
| Coeff. of linear therm. expansion (normal)   | 0.7 / *      | E-4/°C            | ISO 11359-1/-2    |
| Burning Behav. at 1.5 mm nom. thickn.        | HB / *       | class             | IEC 60695-11-10   |
| Thickness tested                             | 1.5 / *      | mm                | IEC 60695-11-10   |
| Burning Behav. at thickness h                | HB / *       | class             | IEC 60695-11-10   |

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| Properties                    | Typical Data | Unit              | Test Method     |
|-------------------------------|--------------|-------------------|-----------------|
| Thickness tested              | 3 / *        | mm                | IEC 60695-11-10 |
| <b>Electrical properties</b>  |              | <b>dry / cond</b> |                 |
| Relative permittivity (100Hz) | 3.8 / 11     | -                 | IEC 60250       |
| Relative permittivity (1 MHz) | 3.5 / 4.6    | -                 | IEC 60250       |
| Dissipation factor (100 Hz)   | 90 / 1400    | E-4               | IEC 60250       |
| Dissipation factor (1 MHz)    | 160 / 1000   | E-4               | IEC 60250       |
| Volume resistivity            | 1E13 / 1E11  | Ohm*m             | IEC 60093       |
| Surface resistivity           | * / 1E14     | Ohm               | IEC 60093       |
| Electric strength             | 30 / 25      | kV/mm             | IEC 60243-1     |
| Comparative tracking index    | 600 / 600    | V                 | IEC 60112       |
| <b>Other properties</b>       |              | <b>dry / cond</b> |                 |
| Water absorption              | 6 / *        | %                 | Sim. to ISO 62  |
| Humidity absorption           | 1.6 / *      | %                 | Sim. to ISO 62  |
| Density                       | 1360 / -     | kg/m <sup>3</sup> | ISO 1183        |

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