

# Durethan® BKV215H2.0

## PA\*—I—GF15

15% Glass Reinforced, Injection Molding, Heat Stabilized, Improved Impact

| PROPERTIES                                   | TYPICAL DATA      | UNIT   | TEST METHOD     |
|----------------------------------------------|-------------------|--------|-----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                |                   |        |                 |
|                                              | <b>DRY / COND</b> |        |                 |
| Molding shrinkage (parallel)                 | 0.6 / *           | %      | ISO 294-4       |
| Molding shrinkage (normal)                   | 0.6 / *           | %      | ISO 294-4       |
| <b>MECHANICAL PROPERTIES</b>                 |                   |        |                 |
|                                              | <b>DRY / COND</b> |        |                 |
| Tensile modulus                              | 4500 / 2300       | MPa    | ISO 527-1/-2    |
| Stress at break                              | 85 / 55           | MPa    | ISO 527-1/-2    |
| Strain at break                              | 4.5 / 15          | %      | ISO 527-1/-2    |
| Flexural modulus                             | 4200 / 2300       | MPa    | ISO 178         |
| Flexural strength                            | 135 / 75          | MPa    | ISO 178         |
| Tensile modulus (200°C)                      | 917               | MPa    | ISO 527-1/-2    |
| Charpy impact strength (+23°C)               | 70 / 95           | kJ/m²  | ISO 179/1eU     |
| Charpy impact strength (-30°C)               | 80 / 80           | kJ/m²  | ISO 179/1eU     |
| Charpy notched impact strength (+23°C)       | 20 / 35           | kJ/m²  | ISO 179/1eA     |
| Charpy notched impact strength (-30°C)       | 10 / 12           | kJ/m²  | ISO 179/1eA     |
| Izod notched impact strength (+23°C)         | 20 / 35           | kJ/m²  | ISO 180/1A      |
| <b>THERMAL PROPERTIES</b>                    |                   |        |                 |
|                                              | <b>DRY / COND</b> |        |                 |
| Melting temperature (10°C/min)               | 214 / *           | °C     | ISO 11357-1/-3  |
| Temp. of deflection under load (1.80 MPa)    | 175 / *           | °C     | ISO 75-1/-2     |
| Temp. of deflection under load (0.45 MPa)    | 205 / *           | °C     | ISO 75-1/-2     |
| Coeff. of linear therm. expansion (parallel) | 0.4 / *           | E-4/°C | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | 1.7 / *           | E-4/°C | ISO 11359-1/-2  |
| Burning Behav. at 3.0 mm nom. thickn.        | HB / *            | class  | IEC 60695-11-10 |



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| PROPERTIES                             | TYPICAL DATA | UNIT  | TEST METHOD     |
|----------------------------------------|--------------|-------|-----------------|
| Thickness tested                       | 3 / *        | mm    | IEC 60695-11-10 |
| Burning Behav. at 0.75 mm nom. thickn. | HB / *       | class | IEC 60695-11-10 |
| Thickness tested                       | 0.75 / *     | mm    | IEC 60695-11-10 |
| Oxygen index                           | 22 / *       | %     | ISO 4589-1/-2   |
| Glow Wire Flammability Index GWFI      | 650 / –      | °C    | IEC 60695-2-12  |
| GWFI (Thickness (1) tested)            | 2 / –        | mm    | IEC 60695-2-12  |

| OTHER PROPERTIES    | DRY / COND |       |                |
|---------------------|------------|-------|----------------|
| Water absorption    | 7 / *      | %     | Sim. to ISO 62 |
| Humidity absorption | 2 / *      | %     | Sim. to ISO 62 |
| Density             | 1170 / –   | kg/m³ | ISO 1183       |

| PROCESSING RECOMMENDATIONS       | VALUE     |    |                      |
|----------------------------------|-----------|----|----------------------|
| Drying temperature dry air dryer | 80        | °C |                      |
| Drying time dry air dryer        | 2-6       | h  |                      |
| Residual moisture content        | 0.03-0.12 | %  | acc. to Karl Fischer |
| Melt temperature (Tmin – Tmax)   | 260-290   | °C |                      |
| Mold temperature                 | 80-100    | °C |                      |

