

# POCAN® A 3121 000000

Polybutylene Terephthalate + ASA

LANXESS GmbH

## Message:

PBT+ASA, 20 % glass fibers, injection molding, low tendency to warp, improved surface finish

| General Information                                      |                                  |                        |             |
|----------------------------------------------------------|----------------------------------|------------------------|-------------|
| Filler / Reinforcement                                   | Glass Fiber,20% Filler by Weight |                        |             |
| Features                                                 | Good Surface Finish              |                        |             |
|                                                          | Low Warpage                      |                        |             |
| Processing Method                                        | Injection Molding                |                        |             |
| Physical                                                 | Nominal Value                    | Unit                   | Test Method |
| Density (23°C)                                           | 1.43                             | g/cm <sup>3</sup>      | ISO 1183    |
| Apparent Density                                         | 0.70                             | g/cm <sup>3</sup>      | ISO 60      |
| Melt Volume-Flow Rate (MVR) (270°C/2.16 kg)              | 20.0                             | cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                                        |                                  |                        | ISO 2577    |
| Across Flow : 270°C, 2.00 mm <sup>1</sup>                | 0.70                             | %                      |             |
| Across Flow : 120°C, 4 hr, 2.00 mm <sup>2</sup>          | 0.20                             | %                      |             |
| Flow : 270°C, 2.00 mm <sup>3</sup>                       | 0.30                             | %                      |             |
| Flow : 120°C, 4 hr, 2.00 mm <sup>4</sup>                 | 0.10                             | %                      |             |
| Water Absorption                                         |                                  |                        | ISO 62      |
| Saturation, 23°C                                         | 0.40                             | %                      |             |
| Equilibrium, 23°C, 50% RH                                | 0.10                             | %                      |             |
| Hardness                                                 | Nominal Value                    | Unit                   | Test Method |
| Ball Indentation Hardness                                | 157                              | MPa                    | ISO 2039-1  |
| Mechanical                                               | Nominal Value                    | Unit                   | Test Method |
| Tensile Modulus (23°C)                                   | 7000                             | MPa                    | ISO 527-2/1 |
| Tensile Stress (Break, 23°C)                             | 110                              | MPa                    | ISO 527-2/5 |
| Tensile Strain (Break, 23°C)                             | 2.9                              | %                      | ISO 527-2/5 |
| Flexural Modulus <sup>5</sup> (23°C)                     | 7000                             | MPa                    | ISO 178/A   |
| Flexural Stress <sup>6</sup> (23°C)                      | 170                              | MPa                    | ISO 178/A   |
| Flexural Strain at Flexural Strength <sup>7</sup> (23°C) | 3.2                              | %                      | ISO 178/A   |
| Burning Behavior <sup>8</sup>                            | passed                           |                        | ISO 3795    |
| ISO Shortname                                            | PBT+PET+ASA, GHMR, 07-070, GF20  |                        | ISO 7792    |
| Residual Moisture Content                                | 0.0 to 0.020                     | %                      | Karl Fisher |
| Impact                                                   | Nominal Value                    | Unit                   | Test Method |
| Charpy Unnotched Impact Strength                         |                                  |                        | ISO 179/1eU |
| -30°C                                                    | 40                               | kJ/m <sup>2</sup>      |             |

| 23°C                                          | 55                          | kJ/m <sup>2</sup> |              |
|-----------------------------------------------|-----------------------------|-------------------|--------------|
| Notched Izod Impact Strength (23°C)           | < 10                        | kJ/m <sup>2</sup> | ISO 180/1A   |
| Unnotched Izod Impact Strength                |                             |                   | ISO 180/1U   |
| -30°C                                         | 45                          | kJ/m <sup>2</sup> |              |
| 23°C                                          | 50                          | kJ/m <sup>2</sup> |              |
| Multi-Axial Instrumented Impact Energy (23°C) | 2.20                        | J                 | ISO 6603-2   |
| Thermal                                       | Nominal Value               | Unit              | Test Method  |
| Heat Deflection Temperature                   |                             |                   |              |
| 0.45 MPa, Unannealed                          | 215                         | °C                | ISO 75-2/B   |
| 1.8 MPa, Unannealed                           | 175                         | °C                | ISO 75-2/A   |
| Vicat Softening Temperature                   | 165                         | °C                | ISO 306/B120 |
| Melting Temperature <sup>9</sup>              | 225 to 260                  | °C                | ISO 11357-3  |
| CLTE                                          |                             |                   | ISO 11359-2  |
| Flow : 23 to 55°C                             | 3.0E-5                      | cm/cm/°C          |              |
| Transverse : 23 to 55°C                       | 9.0E-5                      | cm/cm/°C          |              |
| Electrical                                    | Nominal Value               | Unit              | Test Method  |
| Comparative Tracking Index (Solution A)       | 200                         | V                 | IEC 60112    |
| Flammability                                  | Nominal Value               | Unit              | Test Method  |
| Flame Rating                                  |                             |                   | UL 94        |
| 0.800 mm                                      | HB                          |                   |              |
| 1.60 mm                                       | HB                          |                   |              |
| Injection                                     | Nominal Value               | Unit              | Test Method  |
| Drying Temperature - Circulation Dryer        | 120                         | °C                |              |
| Drying Time - Circulation Dryer               | 4.0 to 8.0                  | hr                |              |
| Processing (Melt) Temp                        | 260 to 280                  | °C                |              |
| Mold Temperature                              | 80.0 to 100                 | °C                |              |
| NOTE                                          |                             |                   |              |
| 1.                                            | 60x60x2mm, 90°C MT, 600 bar |                   |              |
| 2.                                            | 60x60x2mm                   |                   |              |
| 3.                                            | 60x60x2mm, 90°C MT, 600 bar |                   |              |
| 4.                                            | 60x60x2mm                   |                   |              |
| 5.                                            | 2.0 mm/min                  |                   |              |
| 6.                                            | 2.0 mm/min                  |                   |              |
| 7.                                            | 2 mm/min                    |                   |              |
| 8.                                            | US-FMVSS302                 |                   |              |
| 9.                                            | 10°C/min                    |                   |              |

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