

## Technical Data Sheet

### CirculenRecover EP PA6 GF30 HU BUE965057



Polyamide 6

#### Product Description

30% glass fiber reinforced, heat and UV stabilized Polyamide 6 formulated on mechanical recycled sourcing. The product is available in blue color, pellet form. Sustainability: According with the requirements of Standard ISO 14021:2016, CirculenRecover EP PA6 GF30 H U BUE 965057 contains 45% of recycled material that is fully based on pre-consumer waste. Recycled content according to DIN SPEC 91446:2021-12: R45 Data Quality Level according to DIN SPEC 91446:2021-12: DQL4 Data Quality Level according to VDA 284: DQL Automotive

|                      |                                   |
|----------------------|-----------------------------------|
| Processing Method    | Injection Molding                 |
| Attribute            | Heat Stabilized; Medium Viscosity |
| Filler/Reinforcement | Glass Fiber, 30%                  |
| Resin ID             | PA6 GF30                          |

| Typical Properties                               | Nominal Value | Units              | Test Method |
|--------------------------------------------------|---------------|--------------------|-------------|
| <b>Physical</b>                                  |               |                    |             |
| Density, (Method A)                              | 1.37          | g/cm <sup>3</sup>  | ISO 1183    |
| Apparent (Bulk) Density                          | 0.60 to 0.80  | g/cm <sup>3</sup>  | ISO 60      |
| Viscosity Number                                 | 150           | cm <sup>3</sup> /g | ISO 307     |
| <b>Mechanical</b>                                |               |                    |             |
| Tensile Strain at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 3.5           | %                  | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 8.0           | %                  | ISO 527-2   |
| Tensile Stress at Break                          |               |                    |             |
| (Type 1A, 5 mm/min)                              | 170           | MPa                | ISO 527-2   |
| (Type 1A, 5 mm/min) - Conditioned                | 105           | MPa                | ISO 527-2   |
| Tensile Modulus                                  |               |                    |             |
| (1 mm/min, Type 1A)                              | 9700          | MPa                | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                | 5700          | MPa                | ISO 527-1   |
| <b>Impact</b>                                    |               |                    |             |
| Charpy Impact Strength - Notched                 |               |                    |             |
| (23 °C, Type 1, Edgewise, Notch A)               | 12            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)              | 10            | kJ/m <sup>2</sup>  | ISO 179     |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 21            | kJ/m <sup>2</sup>  | ISO 179     |
| Charpy Impact Strength - Unnotched               |               |                    |             |
| (23 °C, Type 1, Edgewise)                        | 80            | kJ/m <sup>2</sup>  | ISO 179     |
| (-30 °C, Type 1, Edgewise)                       | 60            | kJ/m <sup>2</sup>  | ISO 179     |
| (23 °C, Type 1, Edgewise) - Conditioned          | No Break      |                    | ISO 179     |
| <b>Thermal</b>                                   |               |                    |             |

|                                                                        |      |        |            |
|------------------------------------------------------------------------|------|--------|------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa),<br>(Flatwise) | 220  | °C     | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa),<br>(Flatwise) | 200  | °C     | ISO 75-2/A |
| <b>Flammable</b>                                                       |      |        |            |
| Burning Rate, (FMVSS 302)                                              | <100 | mm/min | FMVSS 302  |
| <b>Additional Information</b>                                          |      |        |            |
| Water Absorption Sat/23C, - Conditioned                                | 1.8  | %      | ISO 62     |
| <b>UL Information</b>                                                  |      |        |            |
| Flame Rating                                                           | HB   |        | UL 94      |

| <b>Injection Parameters</b> |  | <b>Nominal<br/>Value</b> | <b>Units</b> |
|-----------------------------|--|--------------------------|--------------|
| Drying Time                 |  | 3.0 to 4.0               | hr           |
| Drying Temperature          |  | 80                       | °C           |
| Suggested Max Moisture      |  | 0.040 to<br>0.10         | %            |
| Processing (Melt) Temp      |  | 250 to 280               | °C           |
| Mold Temperature            |  | 60 to 100                | °C           |