

# Recyclon<sup>®</sup>

Sustainable Alternatives to PA 66  
and PA 6 using Recycled Content



## RECYCLON<sup>®</sup> RECYCLED POLYAMIDE SOLUTIONS

Recyclon polyamides contain up to 100% recycled resin, using post consumer recycled (PCR) or post industrial recycled (PIR) content.

### Recyclon<sup>®</sup> vs. Prime

≥ 80% Retention of Mechanical Properties

|                                          | Recyclon<br>PA 66 33% Glass | Prime<br>PA 66 33% Glass | % Property<br>Retention |
|------------------------------------------|-----------------------------|--------------------------|-------------------------|
| Tensile Strength at Break (MPa)          | 165                         | 200                      | 83%                     |
| Notched Izod Impact (KJ/m <sup>2</sup> ) | 8                           | 10                       | 80%                     |

Portfolio includes standard products and specialty blends:

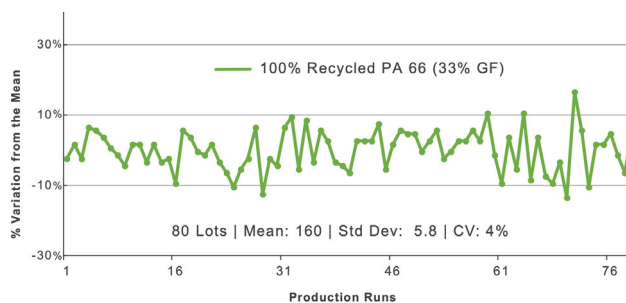
- Standard grades exhibit near-prime performance
- Specialty blends address the most demanding performance and aesthetic requirements while still meeting sustainability goals

### Recyclon<sup>®</sup> Product Consistency

Recyclon offers a high degree of consistency in performance and processability:

- Decades of polyamide formulation expertise
- Careful selection of high quality PCR and PIR resin feedstocks
- Robust production process with strong quality control checks

Lot to Lot Consistency: Minimal variation in tensile strength data from 80 production runs.



## Recyclon® AG Series Technical Data

GLASS REINFORCED PA 66 | WITH 50% PCR RESIN CONTENT

| Property                              | Test Standard | Units             | Recyclon AG13H | Recyclon AG33H | Recyclon AG43H |
|---------------------------------------|---------------|-------------------|----------------|----------------|----------------|
| Material                              | ISO 1043      | ---               | PA66-GF13      | PA66-GF33      | PA66-GF43      |
| Density                               | ISO 1183      | g/cm <sup>3</sup> | 1.23           | 1.40           | 1.50           |
| Tensile Strength at Break             | ISO 527-1/-2  | MPa               | 115            | 165            | 190            |
| Tensile Elongation at Break           | ISO 527-1/-2  | %                 | 3.8            | 3.0            | 3.2            |
| Tensile Modulus (1 mm/min)            | ISO 527-1/-2  | MPa               | 5.6            | 11.5           | 14.1           |
| Flexural Modulus                      | ISO 178       | MPa               | 4.2            | 8.2            | 10.5           |
| Notched Izod Impact at 23 ° C         | ISO 180 (1A)  | KJ/m <sup>2</sup> | 4              | 8              | 10             |
| Notched Izod Impact at -30 ° C        | ISO 180 (1A)  | KJ/m <sup>2</sup> | 3              | 6              | 8              |
| Notched Charpy Impact at 23 ° C       | ISO 179       | KJ/m <sup>2</sup> | 3              | 7              | 9              |
| Heat Deflection Temperature (1.8 MPa) | ISO 75        | ° C               | 213            | 228            | 225            |
| Melting Point                         | ISO 11357     | ° C               | 255            | 255            | 255            |

## Recyclon® BG Series Technical Data

GLASS REINFORCED PA 6 | WITH 100% PCR RESIN CONTENT

| Property                              | Test Standard | Units             | Recyclon BG13H | Recyclon BG33H | Recyclon BG43H |
|---------------------------------------|---------------|-------------------|----------------|----------------|----------------|
| Material                              | ISO 1043      | ---               | PA6-GF13       | PA6-GF33       | PA6-GF43       |
| Density                               | ISO 1183      | g/cm <sup>3</sup> | 1.20           | 1.38           | 1.49           |
| Tensile Strength at Break             | ISO 527-1/-2  | MPa               | 90             | 145            | 160            |
| Tensile Elongation at Break           | ISO 527-1/-2  | %                 | 3.7            | 3.9            | 3.0            |
| Tensile Modulus (1 mm/min)            | ISO 527-1/-2  | MPa               | 5.4            | 10.5           | 12.5           |
| Flexural Modulus                      | ISO 178       | MPa               | 4.5            | 8.0            | 10.5           |
| Notched Izod Impact at 23 ° C         | ISO 180 (1A)  | KJ/m <sup>2</sup> | 4              | 8              | 9              |
| Notched Izod Impact at -30 ° C        | ISO 180 (1A)  | KJ/m <sup>2</sup> | 3              | 6              | 8              |
| Notched Charpy Impact at 23 ° C       | ISO 179       | KJ/m <sup>2</sup> | 4              | 8              | 9              |
| Heat Deflection Temperature (1.8 MPa) | ISO 75        | ° C               | 185            | 195            | 200            |
| Melting Point                         | ISO 11357     | ° C               | 218            | 218            | 218            |

**Contact Teknor Apex to begin customizing your solution today.**

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