

# energy+eco

## Energy Plus Eco® RM60BC

Recycled Polypropylene

### Product Description

**Energy Plus Eco® PCR PP RM60BC** is a polypropylene containing recycled polypropylene, suitable for compounding and injection moulding. This grade is available in the natural or color-matched pellets form. This polypropylene has good impact strength, heat resistant, and flowability and is suitable for household goods.

### Product Characteristic

|                                      |                      |                    |
|--------------------------------------|----------------------|--------------------|
| <b>Test Method Used</b>              | ASTM                 |                    |
| <b>Features</b>                      | Good Impact Strength | Good Flowability   |
|                                      | Good Heat Resistant  | Recycled Materials |
| <b>Typical Customer Applications</b> | Household goods      |                    |

### Typical Properties

| Physical                              | Test Method | Unit              | Value |
|---------------------------------------|-------------|-------------------|-------|
| Melt Flow Rate (2.16 kg @230°C)       | ASTM D1238  | g/10min           | 23    |
| Specific Gravity                      | ASTM D792   | g/cm <sup>3</sup> | 0.92  |
| Mechanical                            | Test Method | Unit              | Value |
| Tensile strength @ Yield              | ASTM D638   | MPa               | 27    |
| Tensile Elongation @ 23°C             | ASTM D638   | %                 | 40    |
| Flexural Strength                     | ASTM D790   | MPa               | 32    |
| Flexural Modulus                      | ASTM D790   | MPa               | 1300  |
| Impact                                | Test Method | Unit              | Value |
| Izod Impact Strength @ 23°C, notched  | ASTM D256   | J/m               | 75    |
| Thermal                               | Test Method | Unit              | Value |
| Heat Defelction Temp (HDT) @ 0.45 MPa | ASTM D648   | °C                | 105   |

**Notes:** Results may vary depending on environmental conditions and /or devices.

## Processing Techniques

The actual conditions depends on the type of equipment used.

### Injection Molding

**Energy Plus Eco® PCR PP RM60BC** is easy to process with standard injection molding machines. To avoid residual humidity from transport or storage, the material should be pre-dried approximately 2h at 80°C. Following molding parameters should be used as guidelines:

|                     |               |
|---------------------|---------------|
| Feeding temperature | 40 – 80 °C    |
| Rear Temperature    | 190 – 210 °C  |
| Middle Temperature  | 190 – 220 °C  |
| Front Temperature   | 200 – 240 °C  |
| Nozzle Temperature  | 210 – 250 °C  |
| Melt Temperature    | 200 – 250 °C  |
| Mold Temperature    | 25 – 50 °C    |
| Screw speed         | Low to medium |
| Injection speed     | Low to medium |
| Holding Pressure    | 20 – 80 bar   |
| Injection pressure  | 80 – 150 bar  |
| Back Pressure       | 10 – 20 bar   |

### Storage

This material should be stored in dry conditions, protected from sunlight and at temperatures below 50 °C.

### Contact

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