

## Technical Data Sheet

### Clyrell RC213M

Polypropylene, Random Copolymer



#### Product Description

*Clyrell* RC213M is a high flow and highly modified polypropylene random copolymer. It contains anti-blocking additives. It does not contain Calcium Stearate.

*Clyrell* RC213M is typically used by customers for manufacturing of oriented and un-oriented films. Typical applications reported by customers are lamination, metallized films, textile and packaging of foodstuffs. In addition, customers also reported that it is particularly suitable as a skin of multilayer twist film.

Customers have been reporting that films produced using *Clyrell* RC213M offer a good balance of properties such as high clarity, brightness, stiffness and medium seal initiation temperature (SIT).

|                          |                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------|
| <b>Application</b>       | Barrier Film; Food Packaging Film; Specialty Film; Textile Packaging Film; Twist Wrap Film |
| <b>Processing Method</b> | BOPP; Cast Film                                                                            |
| <b>Attribute</b>         | Good Processability; High Gloss; Random Copolymer; Unspecified Antiblocking                |

| Typical Properties                                    | Nominal Value | Units             | Test Method   |
|-------------------------------------------------------|---------------|-------------------|---------------|
| <b>Physical</b>                                       |               |                   |               |
| Melt Flow Rate                                        |               |                   |               |
| (230 °C/2.16 kg)                                      | 10.5          | g/10 min          | ASTM D1238    |
| (230 °C/2.16 kg)                                      | 10.5          | g/10 min          | ISO 1133-1    |
| Density                                               | 0.90          | g/cm <sup>3</sup> | ASTM D792     |
| <b>Mechanical</b>                                     |               |                   |               |
| Flexural Modulus                                      | 1000          | MPa               | ISO 178       |
| Tensile Stress at Break                               | 30            | MPa               | ISO 527-1, -2 |
| Tensile Stress at Yield                               | 27            | MPa               | ISO 527-1, -2 |
| Tensile Strain at Break                               | 600           | %                 | ISO 527-1, -2 |
| Tensile Strain at Yield                               | 11            | %                 | ISO 527-1, -2 |
| <b>Impact</b>                                         |               |                   |               |
| Charpy Impact Strength - Notched                      |               |                   |               |
| (23 °C)                                               | 6             | kJ/m <sup>2</sup> | ISO 179-1/1eA |
| (0 °C)                                                | 2             | kJ/m <sup>2</sup> | ISO 179       |
| <b>Thermal</b>                                        |               |                   |               |
| Vicat Softening Temperature, (A/50)                   | 130           | °C                | ISO 306       |
| Heat Deflection Temperature B, (0.45 MPa, Unannealed) | 68            | °C                | ISO 75B-1, -2 |
| <b>Optical</b>                                        |               |                   |               |
| Haze, (50 µm)                                         | <1            | %                 | ASTM D1003    |
| Gloss, (45°, 50 µm)                                   | 90            |                   | ASTM D2457    |