

**LLDPE LL0209AA**  
**Linear Low Density Polyethylene**

**1) Product Description:**

“LL 0209AA” is a LLDPE copolymer with butene as comonomer which contains anti-oxidant. It is recommended for general purpose applications. It is suitable for blending with conventional LDPE. Film made from pure LL 02090 AA has the following advantages over conventional LDPE: Better sealing, higher puncture resistance Greater drawdown capability Higher tensile strength

Neutralizer: Calcium Stearate Antioxidant: Irganox1010,  
Irganox168

**2) Applications:**

Heave duty sacks, agricultural films, liners  
Produce bags, stretch film

**3) Typical Data**

|                           |             |                      |                    |
|---------------------------|-------------|----------------------|--------------------|
| Modulus of elasticity TD  | MPa         | 200                  | ISO 527            |
| Modulus of elasticity MD  | MPa         | 190                  | ISO 527            |
| Puncher Resistance        |             |                      |                    |
| Coefficient of Friction   | --          | 0.5                  | ASTM D1894         |
| <b>Thermal Properties</b> |             |                      |                    |
| Melting Point             | °C          | 127                  | ISO 3146           |
| <b>Property</b>           | <b>Unit</b> | <b>Typical Value</b> | <b>Test Method</b> |

|                                                                  |             |                      |                    |
|------------------------------------------------------------------|-------------|----------------------|--------------------|
| Modulus of elasticity TD                                         | MPa         | 200                  | ISO 527            |
| Modulus of elasticity MD                                         | MPa         | 190                  | ISO 527            |
| Puncher Resistance                                               |             |                      |                    |
| Coefficient of Friction                                          | --          | 0.5                  | ASTM D1894         |
| <b>Thermal Properties</b>                                        |             |                      |                    |
| Melting Point                                                    | °C          | 127                  | ISO 3146           |
| <b>Property</b>                                                  | <b>Unit</b> | <b>Typical Value</b> | <b>Test Method</b> |
| <b>Physical</b>                                                  |             |                      |                    |
| Melt Flow Rate(MFR) (190 °C/2.16Kg) (190 °C/5Kg) (190 °C/21.6Kg) | g/10min     | 0.9 ----             | ISO 1133           |
| Density                                                          | g/cm3       | 0.920                | ISO 1183           |
| <b>Optical Properties</b>                                        |             |                      |                    |
| Haze                                                             | %           | 12                   | ASTM D1003         |
| Gloss                                                            | --          | 50                   | ASTM D523          |
| <b>Film Properties</b>                                           |             |                      |                    |
| Impact Strength                                                  | gr          | 150                  | ASTM D 1709        |
| Tear Strength TD                                                 | g/25μ       | 370                  | ASTM D1922         |
| Tear Strength MD                                                 | g/25μ       | 145                  | ASTM D1922         |
| Modulus of elasticity TD                                         | MPa         | 200                  | ISO 527            |

**4) Processing Condition:**

Recommended melt temperature: 180-225 °C  
Film Blowing Machine: Dr.Collin 30M (Extruder) +180/400(Unit)  
Zone Temperature: 200 °C  
Hopper Temperature: 180 °C Screw speed is set to 50 rpm  
The feeder of the extruder is cooled by cooling water CWS/CWR (35-45 °C)  
Blow up ratio: 2  
Die Diameter: 75 mm  
Die Gap: 1.2 mm