



## Plastics and Resins

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|                                       |                                                                                                                                                                                                                                                                                                       |                           |                                  |                        |           |          |                |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------|------------------------|-----------|----------|----------------|
| Product Name:                         | Low-density Polyethylene Resin (Q310)                                                                                                                                                                                                                                                                 |                           |                                  |                        |           |          |                |
| Trade Mark:                           | Sanren Brand                                                                                                                                                                                                                                                                                          |                           |                                  |                        |           |          |                |
| Alternative Name:                     | High-pressure polyethylene                                                                                                                                                                                                                                                                            |                           |                                  |                        |           |          |                |
| Molecular formula/Structural Formula: | □                                                                                                                                                                                                                                                                                                     |                           |                                  |                        |           |          |                |
| Production Process:                   | The product is made in tube reactor and in presence of initiator by polymerization of ethylene monomer under high temperature and high pressure. The polymer produced is of nomo-polyethylene type.                                                                                                   |                           |                                  |                        |           |          |                |
| Properties:                           | The oblate pellet product is colourless with excellent chemical stability. Under normal conditions, the product is acid resistant, alkali resistant and salt resistant. It possesses certain mechanical properties and water-proof characteristics and air permeability.                              |                           |                                  |                        |           |          |                |
| Grade:                                |                                                                                                                                                                                                                                                                                                       |                           |                                  |                        |           |          |                |
| National Standard Grade:              | PE-FSB-23D045-A                                                                                                                                                                                                                                                                                       |                           |                                  |                        |           |          |                |
| Enterprise Standard Grade:            | Q310                                                                                                                                                                                                                                                                                                  |                           |                                  |                        |           |          |                |
| Specifications:                       | Q/SH012.07.05-1995 LDPE Resin                                                                                                                                                                                                                                                                         |                           |                                  |                        |           |          |                |
|                                       | No.                                                                                                                                                                                                                                                                                                   | Item                      | Unit                             | Quality Criteria       |           |          | Testing Method |
|                                       |                                                                                                                                                                                                                                                                                                       |                           |                                  | premium-grade          | Ist-grade | On spec. |                |
|                                       | 1                                                                                                                                                                                                                                                                                                     | Cleanliness               | Pieces/kg<=                      | 10                     | 15        | 20       | GB11115        |
|                                       | 2                                                                                                                                                                                                                                                                                                     | Melt flow rate            | g/10min                          | 3.1(+0.4)              |           |          | GB11115        |
|                                       | 3                                                                                                                                                                                                                                                                                                     | Density(23ℓ)              | g/cm <sup>3</sup>                | 0.9222(+0.0015)        |           |          | GB11115        |
|                                       | 4                                                                                                                                                                                                                                                                                                     | Fish-eye(0.3-2mm)         | pieces/1200cm <sup>2</sup><br><= | 14                     | 20        | 30       | GB11115        |
|                                       | 5                                                                                                                                                                                                                                                                                                     | Fish-eye(0.5-2mm) linking | pieces/20cm <sup>2</sup><br><=   | 390                    |           |          | Q/SH 012.07.05 |
|                                       | 6                                                                                                                                                                                                                                                                                                     | Impurity(>=0.1mm)         | pieces/100g <=                   | 19                     |           |          | Q/SH 012.07.05 |
|                                       | 7                                                                                                                                                                                                                                                                                                     | Streaks                   | Grade <=                         | B                      |           |          | Q/SH 012.07.05 |
|                                       | 8                                                                                                                                                                                                                                                                                                     | Haze                      | % <=                             | 9.0                    | 10.0      | 11.0     | GB 11115       |
|                                       | 9                                                                                                                                                                                                                                                                                                     | Blocking                  | N/2cm <sup>2</sup> <=            | to be easily separated |           |          | Q/SH 012.07.05 |
|                                       | 10                                                                                                                                                                                                                                                                                                    | Water content             |                                  | On-spec.               |           |          | Q/SH 012.07.05 |
|                                       | 11                                                                                                                                                                                                                                                                                                    | Hue                       | <=                               | -16                    |           |          | Q/SH 012.07.05 |
|                                       | 12                                                                                                                                                                                                                                                                                                    | Tensile strength          | Mpa >=                           | 9.6                    |           |          | GB11115        |
|                                       | 13                                                                                                                                                                                                                                                                                                    | Elongation at break       | % >=                             | 450                    |           |          | GB11115        |
| Scope of Application:                 | Production of various light packing films.                                                                                                                                                                                                                                                            |                           |                                  |                        |           |          |                |
| Major Applications:                   |                                                                                                                                                                                                                                                                                                       |                           |                                  |                        |           |          |                |
| Process Method:                       | Blow moulding                                                                                                                                                                                                                                                                                         |                           |                                  |                        |           |          |                |
| Packing:                              | Heavy duty PE bag as inner packaging and PP woven bag as outer packaging; Each bag has a net weight of 25kg.                                                                                                                                                                                          |                           |                                  |                        |           |          |                |
| Packing Size:                         | Converted dimensions 550mm×850m, or big package                                                                                                                                                                                                                                                       |                           |                                  |                        |           |          |                |
| Storage:                              | The product should be stored in a dry, well ventilated warehouse. To avoid direct sunlight, the product should not be stored in the open air.                                                                                                                                                         |                           |                                  |                        |           |          |                |
| Transportation:                       | By means of truck, vessel or train. During transportation the product should not be exposed to the sunlight and rain. Neither should the product be mixed with contaminants. There should be no heavy bump or unloading by throwing the bags.                                                         |                           |                                  |                        |           |          |                |
| Safety Precautions:                   | 1. Be away from fire and heat sources.<br>2. Should not be stored or transported together with chemicals and inflammables.<br>3. Warehouse must be equipped with extinguishers or fire-fighting device.<br>4. Water, carbon dioxide, dry powder or 1211 can be used as extinguishers for the product. |                           |                                  |                        |           |          |                |

