

NAN YA PLASTICS CORPORATION

TAIRILIN Bottle Grade PET Resin

Type No: 3802P

Tairilin 3802P is a bio-copolymer resin containing ~20% biobased carbon content with a nominal intrinsic viscosity of 0.80dl/g. This resin possesses excellent melting characteristic, optimized crystallization rate, large process window and stability during injection / stretch-blow molding. Specifically, 3802P resin has the advantage of wide processing window during injection and stretch blow molding, this provides the lower generation of acetaldehyde and higher clarity in bottles. 3802P resin is suitable for applications of bottled water, cooking oil, soy sauce and alcoholic beverage applications or for the larger wide mouth bottles.

Tairilin 3802P resin is produced in a state of the art continuous polymerization technology and is combined with a strict quality monitoring system. The production facilities producing 3802P resin are approved by ISO9001 and ISO14001 and OHSAS 18001 systems. 3802P resin has been accepted by food and beverage companies as its outstanding quality for many years.

Tairilin 3802P resin conforms to FDA Regulation 177.1630 and European Directives, and is widely used for food and beverage packaging. 3802P resin is an environmental friendly product with the important advantage of being totally recyclable.

Technical Data Sheet

| Items | | Units | Value | Test Method |
|---|-------------|--|-----------------------------|---------------------|
| Intrinsic Viscosity | | dl/g | 0.800 ± 0.02 | Refer to ASTM D4603 |
| Melting Temperature | | °C | 242 ± 3 | ASTM D3418 |
| Ash Content | | % | ≤ 0.02 | Nan Ya Method |
| Moisture | | % | ≤ 0.30 | Nan Ya Method |
| Acetaldehyde | | ppm | ≤ 1.0 | Gas Chromatography |
| Carboxylic End Group | | 10 ⁻⁶ equ/g | 30 ± 10 | Titration Method |
| Bulk Density | | g/cm ³ | 0.89 ± 0.05 | JIS K-5101 |
| Chip Size | | chips/2g | 130 ± 3 | Weight scale |
| Fines | | ppm | < 100 | Nan Ya Method |
| Color | L Value | - | 86.5 ± 2.0 | ASTM E1164 |
| | b Value | - | -1.8 ± 1.0 | ASTM E1164 |
| Biobased Carbon Content | | % | 20 ± 3 | ASTM D6866-18 |
| The following are provided as suggesting value for reference | | | | |
| Drying Condition | Dew point | °C | -40 | |
| | Air flow | ft ³ /min | 1 / per pound chip per hour | |
| | Residence | hr | 7 ~ 5 | |
| | Temperature | °C | 160 ~ 170 | |
| Moulding Temperature | | °C | 275 ~ 290 | |
| Resin Storage Conditions at converter | | Store PET bag in dry and clean warehouse. Consume PET resin within 1 year from packed date. | | |

(update on Jan 22, 2020)