

	Product Data Sheet	Issue Date : 01.01.10
Product Name	Futura BeerPET – Type 401	Old Type No. 940404

Recommended Applications:

- ▶ Monolayer and Multilayer containers for Beer and other beverages
- ▶ Containers requiring high CO₂, O₂ and UV barrier

Product Features:

- ▶ Futura BeerPET is a customized Naphthalate based specialty copolyester resin.
- ▶ Futura BeerPET resin provides good CO₂, O₂ and water vapor barrier.
- ▶ Futura BeerPET resin provides UV barrier upto 375nm.
- ▶ Futura BeerPET resin is compatible with commercially available oxygen scavengers.
- ▶ With appropriate preform/bottle design and heat set blow molding, Futura BeerPET container withstands tunnel pasteurisation at 60 °C for 20 mins.
- ▶ Futura BeerPET is in full compliance with EU norms.
- ▶ Futura BeerPET is recyclable.

Properties

Characteristic	Unit	Type 401			Test Method
		BeerPET 3M	BeerPET 6M	BeerPET 9 M	
Intrinsic Viscosity @ 30°C	dL/g	0.88 ± 0.02	0.88 ± 0.02	0.88 ± 0.02	FPL-QP-V-20-58
b* Color	CIE Lab	0 max.	0 max.	0 max.	FPL-QP-S-20-55-Part-B-XXI
Carboxyl Number	meq/kg	25 max.	25 max.	25 max.	FPL-QP-T-20-55-Part-B-VIII
Melting Point	°C	246 ± 3	244 ± 3	240 ± 3	FPL-QP-DSC-20-55-Part-B-XVIII #
Acetaldehyde	ppm	1.0 max.	1.0 max.	1.0 max.	FPL-QP-GC-20-55-Part-B-XII
Bulk Density	g/cc	0.80 ± 0.10	0.80 ± 0.10	0.80 ± 0.10	FPL-QP-P-20-55-Part-B-XX
Weight of 20 Chips	mg	300 ± 50	300 ± 50	300 ± 50	FPL-QP-W-20-55-Part-A-I
Moisture (when packed)	wt. %	0.25 max.	0.25 max.	0.25 max.	FPL-QP-E-20-55-Part-B-VI

Determined using DSC second heating cycle.

Processing Parameters

a) Drying Condition

Granules must be thoroughly dried before processing to limit the occurrence of hydrolytic degradation.

Drying temperature	165 ± 5 °C
Drying time	4- 5 hours
Dew point	- 40 °C
Residual Moisture Content	≤ 25 ppm

b) Process Temperature** (Injection Stretch Blow Molding)

Barrel Temperature	285 ± 5 °C
Mold Temperature	285 ± 5 °C
Preform Temperature	125 ± 5 °C

Depending upon the end use, the heat set temperature of the mold can be varied between 90 and 130 °C.

“Blow and fill” is recommended for best performance during hot fill on filling lines.

** The values quoted above are typical numbers for benchmarking. Individual machine parameters should be determined on a case-by-case depending on the design of the product(s).

Packing

Resin can be supplied in 1000 kg PP jumbo bags with LDPE liner at 20 bags per 20 ft FCL container as required.

Contact Address

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