

	<b>Product Data Sheet</b>	Issue Date : 01.01.10
<b>Product Name</b>	<b>Futura KetchupPET - Type 408</b>	Old Type No. 400104

### Recommended Applications

► Hot fill beverages such as Fruit juices, Ketchup, Sports drinks, Sauces, Iced tea, etc.

### Product Features

- Futura KetchupPET is a PET based copolymer resin having naphthalate as comonomer.
- Futura KetchupPET provides excellent clarity, dimensional stability and permanent UV protection up to 375 nm.
- Heat set blown containers having appropriate design, withstand hotfill up to 92°C with <2% shrinkage.
- Futura KetchupPET is in full compliance with USFDA regulations and EU norms.
- Futura KetchupPET is recyclable under SPI code no.1.

### Properties

Characteristic	Unit	Type 408	Test Method
		D10	
Intrinsic Viscosity @ 30°C	dL/g	0.74 ± 0.02	FPL-QP-V-20-58
b* Color	CIE Lab	-2 ± 2	FPL-QP-S-20-55-Part-B-XXI
Carboxyl Number	meq/kg	25 max.	FPL-QP-T-20-55-Part-B-VIII
Melting Point	°C	244 ± 3	FPL-QP-DSC-20-55-Part-B-XVIII #
Acetaldehyde	ppm	1.0 max.	FPL-QP-GC-20-55-Part-B-XII
Bulk Density	g/cc	0.85 ± 0.10	FPL-QP-P-20-55-Part-B-XX
Weight of 20 Chips	mg	300 ± 50	FPL-QP-W-20-55-Part-A-I
Moisture (when packed)	wt.%	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.

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