

# POLYOLEFINS

## BOROUGE POSITION ON FOOD HYGIENE DEMANDS AND STANDARDS

### 1. SCOPE

This position statement is intended to answer most of the questions on food hygiene performance and the application of good manufacturing practice (GMP) that are directed to Borouge as a supplier of Polyethylene (PE), Polypropylene (PP) raw materials for Food Packaging. This statement supports the packaging manufacturer to fulfil the **BRC/IOP** (British Retail Consortium / Institute of Packaging) standard, **ISO 22000** (Food Safety Management) and **EN 15593** (Packaging – Management of Hygiene in the Production of Packaging for Foodstuffs - Requirements)

### 2. RAW MATERIALS FOR FOOD

Borouge materials intended for food contact are regularly assessed regarding their compliance with the latest applicable legislation and standards. Legal compliance is confirmed per polymer grade in our **Statement on Compliance to Food Contact Regulations**, which can be downloaded from our website. The final responsibility for migration compliance lies with the manufacturer and the filler of the package.

### 3. MANAGING THE CONTAMINATION ISSUE

#### Physical contamination

The polymerisation process is a closed process, where Critical Control Points are very few and are controlled by normal operating and quality procedures. This is also why we do not see a need to introduce special rules regarding excessive protective clothing or other restrictions on personnel behavior.

#### Microbiological contamination

The reasoning for physical contamination applies also to microbiological contamination. Further the high temperature (> 200 °C) in the polymerisation and pelletising stages eliminates all biological activity.

#### Chemical contamination

Borouge operates a Chemicals process, whereby all chemicals bought and used are assessed and controlled. No preparations without known composition are allowed into our system. Minor impurities, such as catalyst residues, may be present, but at levels of no concern.

### 4. SELF ASSESSMENT STEP BY STEP

In order to even better secure our delivery capabilities to the food packaging manufacturing sector, we have entered into a self-assessment of our process units. This is done by assessment based on FMEA principles:



#### Management of raw materials

- Before being approved for use in Borouge, all new raw materials are controlled by our specialists / experts for incoming chemicals regarding their compliance with applicable laws and regulations.
- Only selected and approved suppliers are used.

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- All incoming raw materials are visually inspected when feasible.
- Raw material properties are verified according to the specifications agreed with supplier; incoming control is carried out according to internal procedures.
- Raw materials marked after release and segregated according to approval status before being stored in appropriate, closed facilities.

### Polymerisation and pelletising

- Preparation and dosing of raw materials are carried out according to product specifications and recipes stating defined tolerances and the raw material article number.
- Dosing of raw materials is controlled by process control systems and continuously monitored.
- Concentrations of additives in the final product are controlled through testing or mass balance calculations. All produced batches are identified with a unique batch number. This batch number is indicated on each CMR and CoA. Systems are in place for the traceability for raw materials and products.
- Transition rules secure a product sequence that minimizes contamination risks.
- Treated water is used for pellet cooling.

### Handling and storing before loading and packing

- All plants have dedicated transfer lines.
- Pellets and polymer dust generated during transfer are removed according to cleaning procedures.
- Bacterial contamination is limited through filtering of transfer air and regular filter changes.

### Loading, storing and dispatching products in bulk

- Dedicated transfer lines exist for each plant at Borouge. Cleaning / flushing procedures to remove pellets from previous loading are in use.
- Requirements securing dry, clean and odorless tanks are reflected in forwarder contracts.
- Transshipment centres are following Borouge standards.

### Packing, storing and dispatching packed products

- Only approved packaging material suppliers are used.
- The packaging materials conform to directive 94/62/EC (heavy metals, noxious and hazardous substances or regulations valid in the region where the material will be supplied).
- The packaging materials for pellets compliance with the latest regulations on products intended to come into contact with food.
- The process is controlled through packaging orders stating product name, batch number and storage silos.
- Cleaning / flushing procedures to remove pellets from previous packing are in use.
- Warehouses are cleaned and checked regularly.
- Pest control is outsourced to external specialists at all locations
- Bags are inspected before loading and dirty bags / hoods are cleaned, changed or removed.

### Transporting and delivery

- Strict regulations apply to material and construction of containers, gaskets and fittings.
- Vehicles are sealed during transport.
- Blowers on bulk trucks deliver air free of dust, oil and water and have filters removing particles larger than 5 micron from the transport air.

## 5. COMPLIANCE TO FOOD HYGIENE DEMANDS AND GOOD MANUFACTURING PRACTICES (GMP)

Based on the above description and through our integrated HSE and Quality Management System we

- Fulfil the general rules on GMP as laid down in the Articles 5, 6 and 7 of COMMISSION REGULATION (EC) No 2023/2006 on Good Manufacturing Practice for materials and articles intended to come into contact with food.
- Fulfil the relevant applicable requirements of National Standard of the People's Republic of China, GB 31603-2015 - General hygienic standard for the production of food contact materials and products.

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This statement is not intended and should not be construed as a warranty or representation of any kind for which Borouge would assume legal responsibility. Without anyway limiting the abovementioned, Borouge gives no warranties and makes no representations as to the merchantability or fitness for a particular purpose or application of Borouge products.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose.

The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of Borouge products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third-party materials.

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