Frozen green beans specifications and production process requirements

Frozen green beans specification:

1. Product Name: frozen green beans segment and wholes
2. Raw materials: green beans, and auxiliary materials: inside the bag, carton
3. Product Features: PH
4. Product Specification: according to customer requirements
   Packaging materials: bags and cardboard boxes;
   Packing: 10kgX1 bag / box, 1kgX10 bag / box, 0.5kgX10 bags / boxes, or according to customer requirements
5 saved: Keep frozen below minus 18 degrees Celsius
   Product shelf life: Two years
6 products intended use and intended users: supermarket sales, the masses, foreign factories processing
   Method of use: consumption of processed or heated
7 product hygiene and quality standards:
   The products should meet the requirements of sanitary conditions, according to the appropriate industry standard pre-processing and packaging. Then processed, Blanching, IQF, packing, storage and -18 ° C or lower temperature conditions.
Physical Requirements:
Specifications: uniform, go to the head and tail, IQF good.
   A. Wholes: diameter 7-10mm (+ / - 5%); length 5-10cm (+ / -5%)
   B. Cuts: diameter 7-10mm (+ / - 5%); length, 2-4cm or 3-5 cm (+ / -5%)
   C. Dices: diameter 7-10mm (+ / - 5%); length, 5mm (+ / -5%),
      4mm<5%; 8-10mm<10%
Defects and defects
Products entrained bonded or fall off the plant vine
The main flaw: without segmentation of products with a hard cutting edge or edges of the pods
Injured spot of a single product or group of products, loss of stain or hole diameter of more than 6.35MM.
Minor defects: a single product or group of products, injury spot, loss of pigmentation or the diameter of the hole between 2MM to 6MM between.
The two parts of the mechanical injury: crushed or broken products; split into two halves (that is considered as a defect); product finishing incomplete.
The number of samples in the defect level: 200 units, according to the number of
Stem -------------------- 0.5% (1 units)
The main defect --------- 1.5% (3 units)
Minor defects ------- 3.0% (6 units)
Mechanical injury --------- 4.0% (8 units)
Total ----------------- 6% (12 units)
EVM: from green beans, plant stems, vine or leaf; harvest green beans into other harmful plant components, up to allow the existence of a 500G samples.
Freezing: IQF or frozen products should have a certain mobility
Products bonded together with diameters more than 2 "Product Weight no more than 1.0% of the total weight
Color: green beans unique uniform bright color.
Flavor: Typical flavor of the normal green beans, no smell.
Texture: plump, firm and soft
Features: pod soft, non-fiber
FM (foreign body): None
The above defect levels are acceptable maximum.
Chemical requirements:
Peroxidase test: negative
Microbial requirements:
The total number of plate culture: less than 100 000 / G
Escherichia coli: less than 3 / G
Coliform bacteria (MPN method): less than 100 / G
Staphylococcus aureus (coagulase negative): less than 10 / G
Salmonella: results of each test were negative
Of Listeria monocytogenes Listeria bacteria: the test results were negative
4, heavy metals
Cadmium: <0.02 mg / kg
Arsenic: <0.1 mg / kg
Mercury: <0.01 mg / kg
Lead <0.1 mg / kg
Copper: <2mg/kg
Zinc: <20 mg / kg of
Tin: <250 mg / kg

Production process, including process description and processing sectors of key technical parameters

**Production flow chart:**
1, Acceptance of raw materials(CCP1): raw materials inspection staff should be checked into the plant raw material is from the eligible area has been recorded by the census of pesticide residues, and the corresponding certificate of origin, sample tests meet the quality standards of raw materials, the rejection is not specified supply side or the raw material of unknown origin, and in accordance with the quality standards of green beans, cut into segments according to customer requirements.
2, Winnowing: winnowing winnowing machine, depending on the material to adjust the wind, in order to remove impurities, leaves, flat pod, short subject.
3, Soaking / cleaning: soak for 10-20 minutes with 2% saline, the role of de-worming, by the bubble washing machine cleaning to remove sediment and other impurities.
4, Blanching(CCP2)
Fixing: After washing the raw material hoist into the spiral precooked pan-firing.
Fixing Time: The actual fixing duration to peroxisome test results to determine, generally 90-100 seconds.
Fixing temperature: 98 ± 2 °C.
5, Cooling (two): after fixing green beans by immediate access to the cooling process to minimize product temperature in order to enter the IQF freezing.
(1) water at room temperature cooling: water cooling at room temperature, water temperature required to control below 35 °C, chlorine control in the 0.2-0.8PPM.
(2) products are often warm cooling water into the ice water cooling, ice water temperature was controlled at below 10 °C, chlorine control in 0.2-0.8PPM, after cooling, the product temperature control below 15 °C.
6 Drain: water drain to the surface of the product by the vibrating screen.
7, Freezing: IQF and temperatures at or below -25 °C in order to feed; control of feeding amount, uniform cloth, balance, frozen
Binding Process IQF and (frozen zone) below -25 °C temperature control, control your speed; a material product temperature at or below -18 °C, Frozen and dry, loose, no frosting, no caking.
8, semi-finished packaging: freeze a good semi-finished products according to the size of the turnover box
quantitative packing, weighing, should be marked for easy identification
Date of production or product specification code.
9, warehousing cold storage: According to the semi-finished packaging identity, immediately into cold storage separately stacking the refrigerator temperature control below -18 °C.
10, the acceptance of materials, packaging materials: the use of frozen green beans accessories are mainly salt, packaging materials, plastic bags and cardboard boxes. Salt, plastic bags and cardboard boxes from qualified suppliers, purchasing, warehousing sector acceptance.
11, the vibration of the election: by vibrating screen to remove debris, foreign matter.
12, artificial selection: quality specifications, the selection of grading, spot removers go scars, spots, and moth-eaten, color, bad, bad shape, bad organization, end to end without a net, to dehydration foreign body such as defective products and the inclusion foreign body. Promptly sent to the bagging, defective products, the timely collection of clear.
13, the inspection: the inspection of finished product quality standards, failed immediately rework.
14, packing / weighing / sealing: sorting good green beans into the packaging bag, tuning a good balance or scales for weighing small package immediately sealed, and for adjustment of the optimum temperature of the sealing machine , try to rule out the bag of air, and sealing should be tidy, not damaged; tightly enclosed pocket of the large packaging, over gold exploration immediately after packing.
15, Detection(CCP3)for gold exploration: the sensitivity of metal detectors is: Fe ≤ 2.0mm, Sus ≤ 2.5mm;
16, packing / sealing: packing, sealing machine with the height of the carton, width adjustment, with good sealing tape, finished stacked neatly into the box into the sealing machine for sealing The finished bags shall not be exposed.
17, refrigerated storage: packed products moved into the warehouse or areas to be specified deposit points and accounting, the cold storage temperature should be below -18 °C.
18, loading and shipping: Check the cleanliness of the container, the container pre-cooling to 0 ° C, and check the appearance of products, cartons love
Conditions, the finished product center temperature below -18 ° C, loading, and varieties of points, arranged according to the number of shipments, as far as possible to shorten the loading time, the container temperature should be below -18 ° C to ensure that the finished product quality, delivered to customers.

<table>
<thead>
<tr>
<th></th>
<th>&lt;20000 / g,</th>
<th>&lt;50000 / g,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet bacteria / 30 ° C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coliform / g</td>
<td>&lt;50 / g,</td>
<td>&lt;100 / g,</td>
</tr>
<tr>
<td>E. coli</td>
<td>&lt;5 / g</td>
<td>&lt;10 / g</td>
</tr>
<tr>
<td>Staphylococcus aureus / g</td>
<td>&lt;5 / g</td>
<td>&lt;10 / g</td>
</tr>
<tr>
<td>Salmonella / 25g</td>
<td>not detected</td>
<td>not detected</td>
</tr>
<tr>
<td>Listeria</td>
<td>not detected</td>
<td>not detected</td>
</tr>
</tbody>
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Packaging standards:
Main criteria: low-density standard export carton, no nails
Marks: each package clearly show the exact contents of the shipment, net weight, and production code