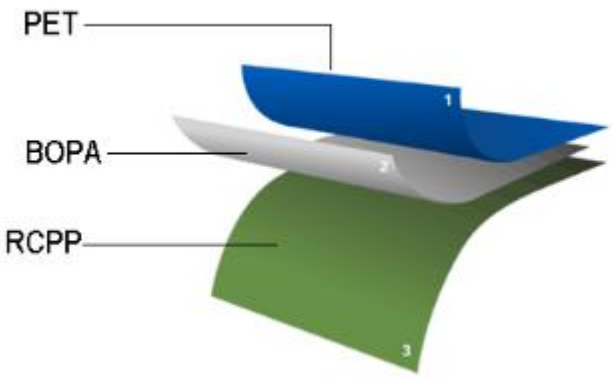
HAIDE

**Qingdao Haide Packaging Co., Ltd.**

**Product Specification and Testing report**

Standard:Q/0282 CLD 002-2019（Pouch） F-CLD8.2.4-05

| Product ID | C220-06 | Product Name | Retort pouch | Structure | PET13/BOPA15/CPP60 |
|---|---|---|---|---|---|
| Order # | C220-06-190302 | Size: L * W | 146*175mm | Order issue date | 2019.3.2 |
| Testing Samples | 10 pcs | Final quantity | 100,000pcs | Testing date | 2019.3.22 |




## Advantages:

- Clear high barrier, high temperature resistance(121-135℃）
- Excellent Barrier to oxygen and Water Vapor, and can effectively extend the shelf life of the contents.
- With microwave steam valve , at a certain temperature, the air in the bag will pass through the steam valve.
- Cook meat, vegetables and more in minutes
- Nutritional benefits of steam cooking

## Applications and Markets

Fast and Snack food, meat products, Marinated meat, ready to eat meal, fruits and vegetables, Sauce products, etc.

| Type | Item | Standard | Test result |
|---|---|---|---|
| Outlook | Crease | No lamination Crease, slight crease less than 5% | Pass |
| | Lamination bubble | No obvious bubble | Pass |
| | Sealing area | Flat,no Virtual sealing, no bubble | Pass |
| | Delamination | No | Pass |
| Printing (gravure) | Registration deviation (mm) | Major part： ≤0.20<br>edge part： ≤0.35 | 0.10 / 0.27 |
| | Chromatic aberration CIE L*a*b* | ≤2.8 | 1.6 |
| | Bar code grade /06/670 | ≥1.5 | 2.2 |
| | Length (mm) | ±3 | 0.2-1.4 |

| | | | | |
|---|---|---|---|---|
| Size deviation | Width (mm) | | ±3 | 0.2-1.8 |
| | Average thickness by % | | ±8 | 4 |
| | Sealing width by % | | ±20 | 7 |
| | Sealing edge deviation mm | | ≤3 | 1.1 |
| Physical Strength | Pulling Strength | Longitudinal | ≥40 | 62 |
| | | Horizontal | ≥40 | 59 |
| | Strain of fracture | Longitudinal(%) | ≥35 | 67 |
| | | Horizontal(%) | ≥35 | 79 |
| | Peeling strength N/15mm | | ≥3.5 | Neither vertical nor horizontal can be peeled off |
| | Heat-seal strength(N) | | ≥25 | Left side : 61<br>Right side : 60<br>Bottom : 56 |
| | Impact test J | | ≥0.6 | 4.9 |
| | Pressure test | | 3 minutes GBT1871 | Pass |
| | Falling test | | Water 70% sealed, 1.5 meter falling 3 | Pass |
| | | | | |
| Chemical Properties | Heat resistance (121-135℃ retort 30min) | | No obvious abnormal phenomena such as deformation, delamination of heat sealing parts | Pass |
| | WVTR (g/㎡. 24h.0.1MPa) | | ≤0.8 | 0.4 |
| | OTR ($cm^3$/㎡. 24h.0.1MPa) | | ≤0.7 | 0.3 |
| | Potassium permanganate consumption （mg/L） | | ≤10 | 1.9 |
| | Evaporation residue | 4%Acetic acid (120℃, 40min) mg/L | ≤30 | 7.2 |
| | | N-hexane mg/L | ≤30 | 11 |
| Residual Solvent | Total solvent mg/$m^2$ | | ≤5 | 1.03 |
| | Aromatic hydrocarbon mg/$m^2$ | | ≤0.5 | 0 |
| Conclusion | **Passed** | | | |