



## TECHNICAL DATA SHEET

US-16 is blown PE film, which the main material is linear low density polyethylene blend with high density polyethylene to get superior in stand up pouch and spout inserting.

### FEATURE

- 1) US-16 can provide some strength and especially toughness to the pouch.
- 2) High rigidity and good heat sealability.
- 3) Good resistance to chemical.
- 4) Film, 100-139 microns, is more suitable with stand up pouch.
- 5) Film, 140-180 microns, design for stiffness enhancement which is more suitable with PE spout inserting.

### USE

Stand up pouch or Laminate as sealant layer with PE spout inserting packaging for liquid detergent and/or others.

### General Physical property of PE Stand Up Pouch (Bag Form)

| Description                            |                | Unit                | Specification |              |                |                | Test Method               |
|----------------------------------------|----------------|---------------------|---------------|--------------|----------------|----------------|---------------------------|
| Width                                  |                | mm                  | Order +5,-0   |              |                |                | UPI Method                |
| Length                                 |                | m                   | Order 0,+3%   |              |                |                |                           |
| Thickness                              |                | um                  | 40-59<br>±5%  | 60-99<br>±4% | 100-139<br>±3% | 140-180<br>±3% |                           |
| Tensile Strength                       | MD             | MPa                 | ≥ 20          | ≥ 20         |                | ≥ 22           | ASTM D 882<br>/JIS K 7127 |
|                                        | TD             |                     | ≥ 15          | ≥ 15         |                | ≥ 20           |                           |
| Elongation at Break                    | MD             | %                   | ≥ 400         | ≥ 500        |                | ≥ 700          |                           |
|                                        | TD             |                     | ≥ 600         | ≥ 700        |                | ≥ 800          |                           |
| Stiffness                              | MD             | N/m                 | N/A           | N/A          |                | ≥ 6000         |                           |
|                                        | TD             |                     | N/A           | N/A          |                | ≥ 6000         |                           |
| Haze                                   |                | %                   | ≤ 15          | ≤ 20         | ≤ 30           | ≤ 35           | ASTM D 1003               |
| Kinetic COF : Non Treated side         |                | -                   | 0.1-0.3       |              |                |                | ASTM D 1894/JIS K 7125    |
| Dart Drop Impact Strength : (Method A) |                | g                   | ≥ 150         | ≥ 300        | ≥ 400          | ≥ 650          | ASTM D 1709               |
| Heat seal strength                     |                | Kgf/15mm            | *             |              |                |                | UPI Method                |
| Corona Treated :                       | Non-Treated    | Dynes               | None          |              |                |                |                           |
|                                        | Inside-Treated |                     | 38-44         |              |                |                |                           |
| Color of Film                          |                | -                   | Clear         |              |                |                |                           |
| Gel                                    | Number         | pcs./m <sup>2</sup> | 10            |              |                |                |                           |
|                                        | Size Ø         | mm                  | 0.5-1.0       |              |                |                |                           |
| Black spot                             | Number         | pcs./m <sup>2</sup> | 5             |              |                |                |                           |
|                                        | Size Ø         | mm                  | 0.1-0.5       |              |                |                |                           |
| Remark.*Refer to the table 1.          |                |                     |               |              |                |                |                           |

Remark.\*Refer to the table 1.

**Table 1 Heat seal strength**

| Thickness (um) | Temperature(C°) | Unit | Specification | Test Method |
|----------------|-----------------|------|---------------|-------------|
| 25-30          | 150             |      | ≥ 0.7         | UPI Method  |
| 31-49          |                 |      | ≥ 0.8         |             |
| 50-70          |                 |      | ≥ 1.0         |             |
| 71-79          |                 |      | ≥ 1.5         |             |
| 80-99          | 170             |      | ≥ 2.0         |             |
| 100-120        |                 |      |               |             |
| 121-129        |                 |      |               |             |
| 130-140        | 180             |      | ≥ 2.5         |             |
| 141-200        |                 |      |               |             |

Note :

Raw Material : Linear Low Density Polyethylene, Low Density Polyethylene, Slip agent, Antiblock agent, Processing aid

Statutory and regulatory : Complies with U.S. FDA : 21 CFR part 177.1520, RoHS, Commission Regulation (EU) No 10/2011.

The Notification of the Ministry of Public Health (No.435) B.E. 2565 (2022)

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## TECHNICAL DATA SHEET

|                     |                                                                                                                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appearance :        | The film shall be uniform ; free of pin hole , foreign matter and streaks.                                                                                                                                                                   |
| Storage :           | Store in dry place, high temperature not over 40 °C, keep away from direct sunlight, high moisture and fuel gas from LPG gas.                                                                                                                |
| Product guarantee : | The physical properties is not over a year. The change in color of film<br>The change in color of film or appearance is not over six months.<br>The corona treatment and COF property is not over three months from the date of manufacture. |

### Roll Characteristics.

|                        |   |                                                                                                                                                                                 |
|------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Width tolerance        | : | ( +5, -0 )mm.( measure on film)                                                                                                                                                 |
| Internal Core diameter | : | 76 ( +3 , -0) mm.                                                                                                                                                               |
| Joint                  | : | 1 for 20% maximum of total delivery.                                                                                                                                            |
| Number of joint        | : | Maximum 1 joint/roll with red tape.                                                                                                                                             |
| Film Appearance        | : | The film shall be uniform ; free of pin hole , foreign matter and streaks.<br>No creasing , no swollen roll.<br>No corrugation , no blocking.<br>Misalignment is not over 2 mm. |

### Packaging.



A



B

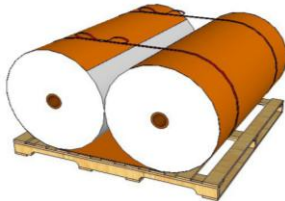


C



D

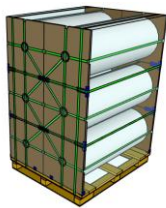
A . Horizontal for laminate film



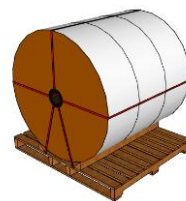
B. Vertical for laminate film



C. Hanging horizontal for shipping and airfreight



D. Horizontal for Heavy duty sack



### Roll Identification:

Each roll is identified with label stucked on the roll.

There is information including customer name , width , length , thickness , weight , corona treatment , etc.

The production history can monitor on batch number 15 digits described below;

|                    |                 |                  |                      |             |
|--------------------|-----------------|------------------|----------------------|-------------|
| AA                 | BB              | CC               | DDDDDD               | - EEE       |
| ↓                  | ↓               | ↓                | ↓                    | ↓           |
| Type of sale order | Production year | Production month | Number of sale order | Roll Number |

Approved by (Customer) :

Position :

Company :

Date :