



#### PRIMARY PACKAGING SPECIFICATION

#### 1. COMMERCIAL NAME:

Flexible intermediate bulk container (FIBC) 2000 lb Polypropylene Woven

#### 2. REFERENCE PHOTO:

White plain totes

#### 3. USE:

Dry edible beans packaging



#### 4. QUALITY CRITERIA:

The direct food contact packaging materials (Polywoven Bags) are hereby guaranteed as of the date of shipment to be produced from non-GMO, without materials or processes intentionally using nanotechnology, produced without the use of animal products, synthetic fungicides, preservatives, bisphenol-a, fumigants and/or pesticides and here by guaranteed to be suitable for being in prolonged contact with dry and powdered food grade products for human consumption. The packaging does not intentionally contain any substances with restrictions or additives with restrictions.

We sources these direct food contact packaging materials from factories with recognized food safety conformity (One of or a combination of BRC, FSSC 22000, ISO 22000, etc.)

Polypropylene offers a good balance of chemical, thermal and electrical properties with moderate strength. It has a good strength to weight ratio and due to its hard, high gloss surface, polypropylene is ideally suited to environments where there is concern for bacteria build up that can interfere with flow. Polypropylene can be heat formed, shaped and welded to fabricate ducts, hoods and much more. Polypropylene has excellent corrosion resistance to a wide range of items. Polypropylene is not UV stabilized but is USDA approved and meets FDA standards.



## **TECHNICAL DATA SHEET**

|                    | TYPICAL PROPERTIES of  | POLYPROP               | YLENE                |                     |
|--------------------|--|------------------------|----------------------|---------------------|
| ASTM or UL<br>test | Property   | Homopolymer            | Co-<br>Polymer       | Flame<br>Retardant  |
|                    | PHYSICAL   |                        |                      |                     |
| D792               | Density (lb/in³)<br>(q/cm³)  | 0.033<br>0.905         | 0.033<br>0.897       | 0.035<br>0.988      |
| D570               | Water Absorption, 24 hrs (%)   | < 0.01                 | 0.01                 | 0.02                |
|                    | MECHANICA  | L                      |                      |                     |
| D638               | Tensile Strength (psi)   | 4,800                  | 4,800                | 4,300               |
| D638               | Tensile Modulus (psi)  | 195,000                | -                    | -                   |
| D638               | Tensile Elongation at Yield (%)  | 12                     | 23                   | 28                  |
| D790               | Flexural Strength (psi) 7,000  |                        | 5,400                | -                   |
| D790               | Flexural Modulus (psi)   | 180,000                | 160,000              | 145,000             |
| D695               | Compressive Strength (psi) 7,000   |                        | 6,000                | -                   |
| D695               | Compressive Modulus (psi) -  |                        | -                    | -                   |
| D785               | Hardness, Rockwell R 92  |                        | 80                   | -                   |
| D256               | IZOD Notched Impact (ft-lb/in)   | 1.9                    | 7.5                  | 0.65                |
|                    | THERMAL  |                        |                      |                     |
| D696               | Coefficient of Linear Thermal<br>Expansion<br>(x 10 <sup>-5</sup> in./in./°F)    | 6.2                    | 6.6                  | -                   |
| D648               | Heat Deflection Temp (°F / °C)<br>at 66 psi<br>at 264 psi                        | 210 / 99<br>125 / 52   | 173 / 78<br>110 / 43 | 106 / 41<br>57 / 14 |
| D3418              | Melting Temperature (°F / °C)  | 327 / 164              | 327 / 164            | 327 / 164           |
| -                  | Max Operating Temp (°F / °C)   | 180 / 82               | 170 / 77             | 180 / 82            |
| C177               | Thermal Conductivity<br>(BTU-in/ft²-hr-°F)<br>(x 10 <sup>-4</sup> cal/cm-sec-°C) | 0.76-0.81<br>2.6-2.8   | -                    | -                   |
| UL94               | Flammability Rating  | НВ                     | n.r.                 | V-O                 |
|                    | ELECTRICAL   |                        |                      |                     |
| D149               | Dielectric Strength (V/mil) short<br>time, 1/8" thick                            | 500-660                | 475                  | 500-650             |
| D150               | Dielectric Constant at 1 kHz   | 2.25                   | 2.2-2.36             | 2.3                 |
| D150               | Dissipation Factor at 1 kHz  | 0.0005-0.0018          | 0.0017               | -                   |
| D257               | Volume Resistivity (ohm-cm) at 50%<br>RH   | 8.5 x 10 <sup>14</sup> | 2 x 10 <sup>16</sup> | 10 <sup>15</sup>    |
| D495               | Arc Resistance (sec)   | 160                    | 100                  | -                   |

# SECONDARY PACKAGING (PALLETIZING AND STACKING) SPECIFICATION

## 5. PACKING AND CONTENT

| Bag weight | Total per<br>Pallet (Bags) | Total<br>per<br>Pallet | Total per<br>Truck (Bags) | Total<br>per<br>Truck | Total<br>per<br>Truck |
|------------|----------------------------|------------------------|---------------------------|-----------------------|-----------------------|
|            | railet (bags)              | (Lbs)                  | Truck (Dags)              | (Pallets)             | (Lbs)                 |
| 2000.0 LB  | 1                          | 2000                   | 22                        | 22                    | 44000                 |

|            |               | Total  |
|------------|---------------|--------|
| Bag weight | Total per     | per    |
| Dag Weight | Boxcar (Bags) | Boxcar |
|            |               | (Lbs)  |
| 2000.0 LB  | 100           | 200000 |



## **TECHNICAL DATA SHEET**

# **STORAGE SPECIFICATION**

# 6. STORAGE AND TRANSPORT CONDITIONS

Store at room temperature. Keep away from solvents. Keep away from oxidizing agents

## 7. SHELF LIFE

No shelf-life limitations

#### 8. REFERENCES:

Laminated Plastics, Technical Data Sheet PP, link: https://laminatedplastics.com/polypropylene.pdf

| REVISION CONTROL |          |  |             |  |
|------------------|----------|--|-------------|--|
| Publication date | Revision | <b>Modifications Regarding the Previous Review</b> | Next review |  |
|                  |          |  |             |  |