

## OSA BIOBASED PLASTIC BAGS

**1. Features:** The material is in form of blown film packaging product with light yellow color and slight fragrance. The material uptakes moisture easily and is decomposed by microbes in compost environment. The products are easily colored with acceptable mechanical properties as compared to conventional packaging products.

### **2. Properties:**

	<b>Properties</b>	<b>Test Method</b>	<b>Test Result</b>
1	Humidity	ASTM - D6980-4	0.22%
2	Decomposition temperature ( <sup>0</sup> C)	TGA	280 <sup>0</sup> C
3	Density (g/cm <sup>3</sup> )	ASTM - D792	1.12
4	Average thickness (mm)		0.025
5	Processing temperature	ASTM - D3418	165 <sup>0</sup> C - 180 <sup>0</sup> C
6	Elastic modulus (MPa)	ASTM - D638	563.6
7	Film tensile strength at break (MD) (MPa)	ASTM D638	42.4
8	Film tensile strength at break (TD) (MPa)	ASTM D638	31.2
9	Film elongation at break (%)	ASTM D638	320
10	Vicat softening temperature ( <sup>0</sup> C)	ASTM - D1525 (Load:1kg, Ramp Rate: 120 <sup>0</sup> C/Hr)	87
11	Puncture forces (N)	ASTM D1709	1.24
12	Bio Substances Content (%)	ASTM D6868	41

## *Technical Data Sheet*

### **3. Product Testing:**

OK Biobased by Vinçotte Center. Compliance with ASTM D6400, the degradation rate is more than 60% in 180 days. Test report from Viet Nam National Center for Quality Supervision & Test of Plastics Products can be provided.

**4. Application:** plastic bag, agriculture mulch...

**5. Processing Method:** conventional blown film extrusion or casting film extrusion.

**6. Remarks:** Due to the high starch content, the product easily absorbs moisture. So it's suggested to be stored in a dry environment. The package should also be sealed properly to prevent the ingress of moisture and stored at the dry place. The film can be easily decomposed into soil friendly substances in microbial environment.