

Ethylene-Vinyl Acetate Copolymer TN2005

Description:

TN2005 is an Ethylene-Vinyl Acetate (EVA) copolymer with high molecular weight, excellent mechanical properties, transparency, high gloss and easy processability. Additionally, TN2005 has flexibility even at low temperatures and good sealing properties. TN2005 can be used as base polymer for the manufacture of greenhouse films with excellent thermal properties. More detailed information about agricultural film applications and light stabilization recommendations, please contact a Braskem representative.

Applications:

Thermal films to cover agricultural greenhouses, High transparency films with high mechanical resistance, Food packaging

Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/2.16kg)	ASTM D 1238	g/10 min	0.5
Vinyl-Acetate Content	ASTM D 5594-98	%	13.5

Typical Properties - EVA:

Plaque Properties (a)

Feature	Method	Units	Values
Density	D 1505 / D 792	g/cm ³	0.935
Tensile Strength at Break	D 638	MPa	25
Elongation at Break	D 638	%	680
Hardness	D 2240	Shore A / D	91/50
Melting Point	D 3418	°C	94
Vicat Softening Temperature at 10 N	D 1525	°C	75

(1) Braskem test method available for customers. (a) Test specimens prepared from compression molded plate according to ASTM D 4703. (b) Compression molded 2 mm thickness, 0.3 mm notched-plaques; 100% Igepal; 50°C.

Typical Properties - EVA (film):

Blow Film Properties (b)

Feature	Method	Units	Values
Tensile Strength at Break (MD/TD)	D 882	MPa	32 / 32
Elongation at Break (MD/TD)	D 882	%	750 / 800
1% Secant Modulus (MD/TD)	D 882	MPa	58/64
Dart Drop Impact Strength	D 1709 (B)	gF	725
Elmendorf Tear Strength (MD/TD)	D 1922	gF	240/350
Haze	D 1003	%	2
Gloss - Angle 45°	D 2457	-	95

(MD = Machine Direction; TD = Transversal Direction) (1) Braskem test method available for customers. (b) 50 µm thickness film, processed in a 50 mm blow film line with barrier screw. 25:1 L/D and a 1,0 mm die gap at a 2,3: 1 blow up ratio.

Final Remarks:

- This resin meets the requirements for ethylene-vinyl acetate copolymers as defined in 21 CFR, section 177.1350 issued by FDA - Food and Drug Administration in force on the date of publication of this specification. The additives present are covered in appropriate regulation by FDA.
- The information presented in this Data Sheet reflects typical values obtained in our laboratories, but should not be considered as absolute or as warranted values. Only the properties and values mentioned on the Certificate of Quality are considered as guarantee of the product.
- In some applications, Braskem has developed tailor-made resins to reach specific requirements.
- In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance Area.
- For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS registry number: 24937-78-8.
- The mentioned values in this report can be changed at any moment without Braskem previous communication.
- Braskem does not recommend this grade for packages, parts or any kind of product manufacture that will be used for

storage or contact with solution that will have internal contact with human body.

8. This resin does not contain the substance Bisphenol A (BPA, CAS # No. 80-05-7) in its composition.

