

Ethylene-Vinyl Acetate Copolymer TN2020

Description:

TN2020 is an Ethylene-Vinyl Acetate (EVA) copolymer, developed to meet the needs of the segment of multi-layer packages produced by coextrusion and/or lamination processes. Multilayer structures with TN2020 can be irradiated to improve physical proprieties, such as adhesion between layers, puncture resistance and hot sealing. Since it presents an exceptional weldability, this product meets the requirements for automatic or semi-automatic lines of cutting, welding and/or packaging (with or without vacuum-packed process). It has excellent performance during extrusion operation, thermal stability, and a low consumption of energy during its processing. It allows production of packages with dimensional uniformity and excellent visual properties. High transparency and gloss enhance the printing and surface finish of the packages.

Applications:

Food packaging

Processes:

Coextrusion Films

Control Properties:

Feature	Method	Units	Values
Melt Flow Rate (190°C/2.16kg)	ASTM D 1238	g/10 min	2.0
Vinyl-Acetate Content	ASTM D 5594-98	%	8.5

Typical Properties - EVA:

Plaque Properties (a)

Feature	Method	Units	Values
Density	D 1505 / D 792	g/cm ³	0.931
Tensile Strength at Break	D 638	MPa	19
Elongation at Break	D 638	%	700
Hardness	D 2240	Shore A / D	93/45
Melting Point	D 3418	°C	100
Vicat Softening Temperature at 10 N	D 1525	°C	79

(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	31 / 24
Elongation at Break (MD/TD)	D 882	%	650 / 1100
1% Secant Modulus (MD/TD)	D 882	MPa	79/94
Dart Drop Impact Strength	D 1709 (B)	gF	175
Elmendorf Tear Strength (MD/TD)	D 1922	gF	200 / 220
Haze	D 1003	%	3
Gloss - Angle 45°	D 2457	-	90

(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.

3. In some applications, Braskem has developed tailor-made resins to reach specific requirements.
4. In case of doubt regarding utilization, or for other applications, please contact our Technical Assistance Area.
5. For information about safety, handling, individual protection, first aids and waste disposal, please see MSDS. CAS registry number: 24937-78-8.
6. The mentioned values in this report can be changed at any moment without Braskem previous communication.
7. 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.