

Packing Material description	Product type	Shrinkbag
	Available width:	200 till 650 mm +/- 5%
	Available lengths:	Bottom seal bags: till 3000 mm. +/- 5%
		Sideseal bags: till 600 mm. +/- 5%
	Thickness:	50 my +/- 5
	Colors:	transparent and printed. Printable till 8+8 UV
	Composition:	Polyethylene, Ethylene vinyl alcohol, Polyethyleentereftalaat
	These shrinkbags are multilayer based bags.	

Intended food contact	Usually used for the packaging of sausages and other heat-processed products, with extended shelf-life, such as liverwurst, mettwurst, chopped pork, bologna, ham, sirloin, headcheese, black pudding, meat products in jelly, melted cheese, soup, sauces.
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European Legislation Compliance	<p>The product is in compliance with the rules of the Article 3, 11 (5), 15 and 17 of the Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food repealing Directives 80/590/EEC and 89/109/EEC, Official Journal of the European Union no. L 338/4 of 13.11.2004, modified by app. No. 5.17 of the regulation (EC) no. 596/2009 of 18 June 2009, Official Journal of the European Union no. L 188 of 18 July 2009, article 3.</p> <p>Foodstuffs, Consumer Goods and Animal Feed Code (Foodstuffs and animal Feed Code – LFGB in the version of the notification of 24 July 2009 (BGBl. I p. 2205), last amendment by article 1 of the law of 3 August 0009 (BGBl. I p. 2630) §§ 30 and 31,</p> <p>and is approved according to the</p> <p>Commission Regulation (EC) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food replacing Directive 2002/72/EC.</p> <p>Only monomers and additives used to manufacture this grade are listed in Commission Regulation (EU) No 10/2011 of January 2011 on plastic materials and articles intended to come into contact with food.</p>
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Overall migration	<b>Test</b>	<b>Overall migration result</b>
	10% ethanol (temp 20°C, 10 days)	<0.6 (0.5; 0.6; 0.6) mg/dm <sup>2</sup>
	Olive oil (temp. 20°C, 10 days)	5.0 (2,3; 4.0; 1.6) mg/dm <sup>2</sup>
	<p>Global migration measured was carried out according to the methods for the "Examination of consumer goods" corresponding to the directive B 80.30, 1 to 3 (EG) of the Official Collection Analytical Methods according to § 64 LFGB and according to rules of the series of standards EN 1186, EN 13130 and CEN/TS 14234 " Materials and articles in contact with foodstuffs – Plastics",</p> <p>Global migration measured comply demands of Commission Regulation (EU) No 10/2011 of January 2011 on plastic materials and articles intended to come into contact with food,</p> <p>And according to the demands of the Code of Federal Regulations, Food and Drugs (FDA), 21 CFR Ch. I (April 21,2009 edition), passes the test of the migration from the film into food simulants being less than EC limit of 10 mg/dm<sup>2</sup></p>	

Specific migration	<b>Substance</b>	<b>SML</b>
	1-octene	15 mg/kg
	Maleic anhydride (as acid)	30 mg/kg
	Diethylene glycol	30 mg/kg
	Caprolactam	15 mg/kg
	Methacrylic acid	6 mg/kg
	Methyl acrylate	6 mg/kg
	Ethylene glycol	30 mg/kg
	Terephthalic acid	7.5 mg/kg
	Zinc stearate	5 mg/kg
	Primary aromatic amines	0.01 mg/kg
	Lauroactam	5 mg/kg
	Acetic acid, vinyl ester	12 mg/kg
	Oktadecyl 3-(3,5 di-tert-buthylhydroxylphenyl) propionate	6 mg/kg
Specific migration tests carried out on this substances, show that Specific migration limits are not exceeded		

	<b>Printing</b>
	UV based ink
	The global migration (EU limit 60 mg/kg foodstuffs) is below 60 mg/kg. The inks are therefore in compliance with Regulation (EC) 10/2011 and 1935/2004.
	<b>Ratio of food contact surface area to volume</b>
	2 dm <sup>2</sup> /100 ml

<b>Dual use additives</b>		
	<b>Substance</b>	<b>NR E / E No.</b>
	Polyethylene glycol	1521
	Talc	553b
	Citric acid	330
	Silicon dioxide	551

Technical Specification	<b>Properties</b>	
	Recommended conditions of contact with food	Treatment: max 300s, 96°C
		Storage: up to 90 days at refrigerated and frozen conditions
	Oxygen permeability in cm <sup>3</sup> / m <sup>2</sup> / 24u <i>method of testing</i>	max. 11 O <sub>2</sub> ASTM D 3985-05 (by 23°C, 0% RH)
	Moisture vapour permeability in g / m <sup>2</sup> / 24u <i>Method of testing</i>	max. 12 H <sub>2</sub> O ASTM F 1249-05 (by 38°C, 90% RH)
	<b>Usage</b>	
	The shrinkbags can be used directly, putting for 5 seconds under hot water	
	<b>Storage conditions</b>	
	Store bags cool, dry and out of direct sunlight.	
	Temperature	10 - 25 °C
	Air humidity	40 - 75 %
	Shelf life	12 months from the date of delivery

Good manufacturing	The production and distribution processes of this grade have been submitted to a systematic review in regards to Good Manufacturing practices as defined by the "GMP" Regulation (EC) 2023/2006
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General	<p>By the observing the above regulations, we have fulfilled our duty of care regarding the compliance of the product we supply.</p> <p>Although the product is intended for general food use (i.e. intended for contact with foodstuffs, it is responsibility of the end user to verify its suitability for his own intended food application.</p> <p>This Certificate is valid as of the date specified below and it will be replaced in case of change of material composition or when the legislation is modified and updated in such a manner as to require a new evaluation of the regulatory compliance.</p>
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Leeuwarden, i.o. Weidelco