EGYPTENE
HD & LLD POLYETHYLENE

HDPE FILM

HD 5301 FB

HD 5301 FB* is a high density polyethylene grade with a broad molecular weight distribution. This grade has been especially developed for the production of very thin film with high tensile strength and stiffness.

HD 5301 FB has the following characteristics:
- Excellent drawdown capability.
- Good extrudability.
- High stiffness.
- High tensile strength.

Applications

- Strong thin film.
- Carrier bags.
- Grocery sacks.

TYPICAL PROPERTIES

Property/Grade	Test Method	Unit of measurement	Value
Melt flow rate (2.16 Kg)	ISO 1133	g/10 min	0.05
Density	ISO 1872/1	Kg/m^3	953
Tensile strength at yield MD/TD	ISO R 1184	MPa	32/29
Tensile strength at break MD/TD	ISO R 1184	MPa	57/65
Elongation at break MD/TD	ISO R 1184	%	450/400
Tear strength MD/TD	ASTMD 1922-67	g/25 mic	20/28
Dart impact strength	ASTMD 1709-75	g	130

Film properties were measured on 15 micron film extruded at a blow up ratio 5 : 1.
* FB: Low gel film.

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Food Contact Plastics

Certificate of Conformity with the Requirements of EU Regulation 10/2011, as amended.

Certificate no: 2012/4665

Product name: HDPE Resin; *'HD 5301 FB'*
Manufacturer: Sidi Kerir Petrochemicals Co. "SIDPEC"
Address: km 36 Alex-Cairo Desert Road, Alnahda, Alameria, Alexandria, EGYPT
Date of Issue: 7 February 2012
Pira Ref no: 07A12J3146/11A12J4763

Samples manufactured from the above resin have been tested for overall migration with the simulants and test conditions listed below.

	Test Conditions		
Food Simulants	**Duration**	**Temp/°C**	**Test**
Simulant A, B and D2	10 days	40°C	TI

TI = exposure to food simulant by total immersion.

The overall migration results obtained were found to be below the overall migration limits defined in EU Regulation 10/2011.

Additionally, Pira have carried out an audit of the formulation of the above product. All monomers and additives contained in the formulation are approved for use in food contact plastics and are listed in Annex I of EU Regulation 10/2011. The following substance(s) are subject to restrictions under this legislation;

- Zinc salt of stearic acid, PM Ref 89040, CAS 57-11-4, FCM No 106, SML = 25 mg/kg (as Zn)

Experimental studies and/or migration modelling using an accepted EU model (Migratest Lite) with exposure condition of 10 days at 60°C, a material thickness of 500 µm and the conventional EU ratio of 6 dm^2 of packaging per kg of food have shown that the above restriction/s will not be exceeded under these conditions.

The formulation of the above resin contains the following multiple function additive/s;

- Calcium salt of stearic acid, PM Ref 89040, CAS 57-11-4, FCM No 106, E470

(NB Multiple function additives are defined as those which are also approved for direct addition into foods and which would therefore be subject to separate food regulations).

The above resin can therefore be used to manufacture products which meet the requirements of EU Regulation 10/2011, as currently amended, for use with all classes of foodstuff for;
(a) any period (including periods over 6 months) at room temperature or below, and/or
(b) periods up to 2 hours at temperatures up to 70°C, and/or
(c) periods up to 15 minutes at temperatures up to 100°C.

The product therefore also meets the safety requirements laid out in Article III of EC Regulation 1935(2004) under the above conditions of use.

NB Users are reminded that EU Regulation 10/2011 relates to finished articles/materials manufactured from plastics. Users of the above products are responsible for ensuring that their finished products comply with the overall migration limit and any specific migration limit/s mentioned above, by conducting appropriate tests on their finished products.

Certified by: Dr Alistair Irving
Principal Consultant, Food Packaging Safety

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Certificate of Conformity with the Taint and odour Requirements of EC Regulation 1935 (2004)

Certificate no: 2006/3277

Product Name: *HD 5301 FB*

Date of Issue: 3 November 2006

Pira Reference No: 06A12J1788

Manufacturer: Sidi Kerir Petrochemicals (SIDIPEC) Egypt
El Amerya
Nahda Territory
Alexandria
Egypt

A sample of the above product has been tested for sensory analysis (taint and odour) using methods BS EN 1230-1 & 2; 2001, with the test conditions listed below.

Taint test	Test Conditions	
Test Food	Duration	Temp/°C
Milk chocolate; direct contact	2 days	23°C

Odour test	
Test Conditions	
Duration	Temp/°C
1 days	23°C

The taint and odour results obtained showed that the product did not transfer substances to the test food causing it to become tainted.

The above product was therefore found to be in compliance with the taint and odour requirements of EC Regulation 1935 (2004).

Certified by: **Allison Leach**
Senior Analytical Chemist
Analytical Services