

HDPE INJECTION MOULDING

HD 5211 EA

HD 5211 EA* is an easy flow high density polyethylene copolymer grade with a narrow molecular weight distribution.

HD 5211 EA has the following characteristics:

- Good flow properties.
- Good impact resistance.
- Good environmental stress cracking resistance.

Applications

- Paints pails.
- Bottle caps.
- Housewares.
- Toys.

Typical Properties

Property/Grade	Test Method	Unit of measurement	Value
Melt flow rate (2.16 kg)	ISO 1133	g/10 min	11
Density	ISO 1872/1	Kg/m ³	952
Vicat Softening T°	ISO R 306-74	C°	123
Tensile strength at yield	BP 13B/1	MPa	27
Elongation at break	BP 13B/1	%	> 1000
Flexural modulus	ISO 178	MPa	1150
•ESCR,F50,23 C°	ASTMD 1693	hours	50
Charpy impact resistance	ASTMD 256	KJ/M ²	5

• ESCR: Environmental stress cracking resistance.

* EA: Standard unmodified except for antioxidant.





Food Contact Plastics

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

Certificate no: 2012/4663

Product name: HDPE Resin; 'HD 5218 EA / HD 5211 EA / HD 5226 EA'
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.

Food Simulants	Test Conditions		
	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;

- Thiodipropionic acid, dioctadecyl ester, PM Ref 93280, CAS 693-36-7, FCM No 368, SML = 5.0 mg/kg

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 dm² 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;

- any period (including periods over 6 months) at room temperature or below, and/or
- periods up to 2 hours at temperatures up to 70°C, and/or
- 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 Irvine
Principal Consultant, Food Packaging Safety



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

Certificate no: 2006/3275

Product Name: HD 5211 EA
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 Food	Test Conditions	
	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