HDPE BLOW MOULDING

HD 5502 GA

HD 5502 GA* is a medium molecular weight copolymer grade with a broad molecular weight distribution, which offers an optimum balance of properties for use in a wide range of blow moulded applications.

HD 5502 GA has the following characteristics:

- Easy processing.
- Good rigidity.
- High environmental stress-cracking resistance.
- Medium impact strength.

Applications

- Blow moulded containers up to 30 litres for packaging chemicals.
- Household products.
- Ducting pipe.
- Drainage pipe.
- Non pressure pipe.

Typical Properties

Property/Grade	Test Method	Unit of measurement	Value
Melt flow rate (2.16Kg)	ISO 1133	g/10 min	0.2
Density	ISO 1872/1	Kg/m^3	955
Tensile strength at yield	BP 13B/1	MPa	25
Elongation at break	BP 13B/1	%	1000
Flexural Modulus	ISO 178-1975	MPa	1000
Impact Resistance, F 50	BP 13B/11	m	3.3
•BSCR, 50° C	BP 13C/25	hours	25

• BSCR: Bottle stress cracking resistance.
* GA: Gas phase process.

Pira International

Cleeve Road, Leatherhead
Surrey KT22 7RU United Kingdom
Tel +44 (0) 1372 802000
Fax +44 (0) 1372 802238

www.piranet.com

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

Certificate no: 2006/3270

Product Name: *HD 5502 GA*

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

Pira International

Cleeve Road, Leatherhead
Surrey KT22 7RU United Kingdom
Tel +44 (0) 1372 802000
Fax +44 (0) 1372 802240

www.pira-international.com

Food Contact Plastics

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

Certificate no: 2012/4669

Product name: HDPE Resin; *'HD 5502 GA / HD 5403 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.

	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)
- Reaction product of di-tert-butylphosphonite with biphenyl, obtained by condensation of 2,4-di-tert-butylphenol with Friedel Craft reaction product of phosphorous trichloride and biphenyl, PM Ref 83595, CAS 119345-01-6, FCM No 760, SML = 18 mg/kg
- Octadecyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate, PM Ref 68320, CAS 2082-79-3, FCM No 433, SML = 6 mg/kg.

Experimental studies and/or migration modelling using an accepted EU model (Migratest Lite) with exposure condition of 10 days at 50°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 no multiple function additive/s; (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) frozen/refrigerated conditions and any period (up to 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 Irvine
Principal Consultant, Food Packaging Safety