

Test Report

No: 13,078 V1

Customer: Egyptian Portuguese company for plastic (EP Plastic)

Report Date: 20/08/2023

Address: Apartment 5, floor 2, building 163, residential area 11, Sadat, Menoufia

Receiving date: 07/08/2023

Sample Identification: sheets of plastic 10*20 cm

Sampled by: Customer.

Sample Description: Food barrel, 230 liters, cylindrical shape

Contact details: Dr. Maha Salah

Lab Name: Migration						
Code: 13079						
Start Analysis: 07/08/2023			End Analysis: 17/08/2023		Temperature: 22°C	Humidity: 48%
Migration Analysis						
A- Overall Migration Test						
Test items	Unit	Results	Compliance	Uncertainty	Standard limits EU 10-2011	Test method
1- Acetic acid 3 % for 10 Days at 40 °C					Not more than 10 mg/dm²	EN 1186-3/2022
1 st Replicate	mg/dm²	3.5	3.4	-----		
2 nd Replicate	mg/dm²	3.7				
3 rd Replicate	mg/dm²	3.0				
Mean	mg/dm²	3.4	Comply			
2- Ethanol 10 % for 10 Days at 40 °C						
1 st Replicate	mg/dm²	1.2	1.3	-----		
2 nd Replicate	mg/dm²	1.4				
3 rd Replicate	mg/dm²	1.2				
Mean	mg/dm²	1.3	Comply			
3- Distilled Water for 10 Days at 40 °C						
1 st Replicate	mg/dm²	1.0	1.0	-----		
2 nd Replicate	mg/dm²	1.2				
3 rd Replicate	mg/dm²	0.8				
Mean	mg/dm²	1.0	Comply			



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Start Analysis:07/08/2023			End Analysis: 17/08/2023		Temperature: 22°C	Humidity: 48%
<u>B- Migration of Heavy Metals by Acetic acid 3 % for 10 Days at 40 °C</u>						
Test items	Unit	Results	Compliance	Standard Limits EU 10-2011 (amendment 1416/2016) (amendment 752/2017)	Uncertainty	Test method
Copper	mg/kg	Not Detected	Comply	≤5	-----	EU 10-2011
Iron	mg/kg	0.248	Comply	≤ 48	-----	
Zinc	mg/kg	0.025	Comply	≤ 5	-----	
Manganese	mg/kg	Not Detected	Comply	≤ 0.6	-----	
Barium	mg/kg	Not Detected	Comply	≤ 1	-----	
Aluminum	mg/kg	Not Detected	Comply	≤ 1	-----	
Cobalt	mg/kg	Not Detected	Comply	≤ 0.05	-----	
Nickel	mg/kg	Not Detected	Comply	≤ 0.02	-----	
Person in charge / Technical manager: Ch. Sameh Adel						



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Lab: Specific Migration Code: 13078-13079 Start Analysis: 7-8-2023 End Analysis: 17-8-2023 Temperature: 22°C Humidity: 49%						
Simulant Used: Acetic acid 3% Test Condition: 60 °C for 10 days						
Test Item	Units	Results	Reference (EU 10/2011)	Uncertainty	Compliance	Test Method/Date
*Benzylbutyl Phthalate(BBP)	mg/kg	Not detected	30	-----	Comply	EN 13130-1:2004 (EU) 10/2011 Application Note Thermo-20735
*Bis (2-ethyl hexyl) Phthalate (DEHP)	mg/kg	Not detected	1.5	-----	Comply	
*Dibutyl Phthalate(DBP)	mg/kg	Not detected	0.3	-----	Comply	
*Diisononyl Phthalate(DINP) + *Diisodecyl Phthalate(DIDP)	mg/kg	Not detected	9	-----	Comply	
*Dihexyl phthalate(DHP)	mg/kg	Not detected	Customer request	-----	Comply	
*Di-n-Octyl phthalate(DNOP)	mg/kg	Not detected	Customer request	-----	Comply	
Person in charge / Technical manager: Ch. Islam Abd Elsalam						

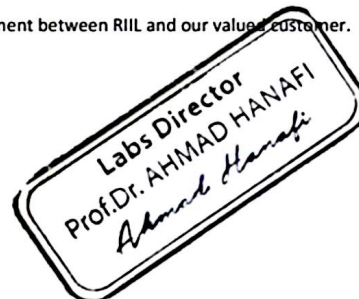


Test Report

No: 13,078 V1

Lab: Specific Migration						
Code: Sheet of Plastic						
Start Analysis: 7-8-2023		End Analysis: 20-8-2023		Temperature: 20-24 °C	Humidity: 40-60%	
Simulant Used: Acetic acid 3%						
Test Condition: 60 °C for 10 days						
Test Item	Units	Results	Reference NFSA Decree no. 17/2022	Uncertainty	Compliance	Test Method/Date
Bisphenol A	mg/kg	Not detected	0.05	-----	Comply	EN 13130-13-2005
terephthalic acid	mg/kg	Not detected	7.50	-----	Comply	EN 13130-2 2005
Benzo(a)pyrene	mg/kg	Not detected	0.01	-----	Comply	EN 13130-1 -2004
Hexamethylene diisocyanate	mg/kg	Not detected	ND	-----	Comply	EN 13130-8 2004
2,6-toluene diisocyanate	mg/kg	Not detected	ND	-----	Comply	
2,4-toluene diisocyanate	mg/kg	Not detected	ND	-----	Comply	
diphenylmethane-4,4'-diisocyanate	mg/kg	Not detected	ND	-----	Comply	
Acrylamide	mg/kg	Not detected	ND		Comply	EN 13130-10 2005
Person in charge / Technical manager: Ch. Mohamed Khaleel						

- Testing laboratory comply with **ISO/IEC 17025:2017**, with accreditation certificate No D-PL-14316-01-00 from **DAkkS**
- The result shown in this report refers only to the sample tested.
- All data in this report are confidential from RIIL side.
- (*) This test is not included in RIIL's accreditation scope
- Another version, conformity reports, opinions and interpretations will be provided after agreement between RIIL and our valued customer.



Marlex[®] HXM 50100

Extra High Molecular Weight Hexene Copolymer

CUSTOMER BENEFITS

An excellent balance of stress cracking resistance, stiffness and melt strength make this resin an ideal candidate for large blow-molded items and thermoformed parts.

This resin has
and produces molded parts with

- Good melt strength
- Excellent stress cracking resistance
- Good rigidity
- Excellent impact strength even at low temperatures

SUGGESTED APPLICATIONS

Blow-molded items such as

- 55-gallon shipping containers
- Gasoline tanks
- Agricultural chemical tanks

and extruded items such as

- Pallets
- Cattle feeders
- Large formed parts
- Boats

Features

- Copolymer
- Durable
- Food Contact Acceptable
- Good Melt Strength
- Good Rigidity
- Hexene Comonomer
- High Density
- High LSCR (Stress Crack Resist.)
- Low Temperature Impact Resistance
- Recyclable Material
- Ultra High Molecular Weight

Ministry of Health & Population
Preventive Sector
Central Health Laboratories



وزارة الصحة والسكان
قطاع الطب الوقائي
الإدارة المركزية للمعامل
إدارة الأغذية - الحمايك

نتيجة فحص عينة غذائية

2021-02-10:

تاريخ الاستلام

4007767:

رقم المعمل

رسوم:

الرقم السري

جاء من برميل

نوع العينة

قرار اوعية الزان

نوع التحصن المطلوب

الشركة المصرية البترولية للبلاستيك

الحجة الراسلة

التحليل الكيميائي - الاوعية و المعادن الثقيلة

النتيجة	التحصيل	النتيجة	التحصيل
مطابق	الكاديوم	مطابق	الرصاص

العينة مطابقة للقرار ٧٣ لسنة ٢٠٠١ من حيث عنصري الرصاص والكاديوم

تحصيل الكيماوي - الألوان

العينة مطابقة للقرار ٧٣ لسنة ٢٠٠١ من حيث ثبات اللون

**النتيجة النهائية: العينة مطابقة كيميائياً.

** ملحوظة: برجاء تحصيل مبلغ ٨٥٠ فقط لا غير وذلك قيمة رسوم التحليل للعينة طبقاً لقرار وزير الاقتصاد والتجارة الخارجية رقم ٢٢ لسنة 2000 بند ثانياً فقرة ٢ يتم الدفع نقداً بخزينة الإدارة المركزية للمعامل أو بتحويل بنكي على الرقم المؤسسي ١٣١٠٠١٠١ ثم يتبعه رقم الحساب الخاص بالإدارة المركزية للمعامل ٩٤٥٠٨٧٤٥٣١ على البنك المركزي المصري فرع المهندسين

مدين عام الكيمياء السحية

رئيس الإدارة المركزية للمعامل

منه / سحر إبراهيم

أحمد

إدارة الأغذية

Product Description

BM1052 grade is high molecular weight High Density Polyethylene copolymer with broad molecular weight distribution. It has excellent processability and exhibits very high impact strength, stiffness and superior environmental stress crack resistance.

Typical Applications

BM1052 resin is intended for blow molding of large containers such as closed head shipping containers, fuel tanks and containers for industrial use. It can also be extruded into sheets giving exceptionally high impact strength.

Typical data

Properties	Unit	Value ⁽¹⁾	Test Method
Melt Flow Rate @ 190°C & 2.16 kg load	g/10 min.	0.05	ASTM D 1238
@ 190°C & 5 kg load		0.38	
@ 190°C & 21.6 kg load		10	
Density @ 23°C	kg/m ³	952	ASTM D 1505
Mechanical Properties ⁽²⁾			
1% Secant Modulus	MPa	1000	ASTM D 638
Tensile Strength @ Yield	MPa	27	ASTM D 638
Tensile Strength @ Break	MPa	18	ASTM D 638
Tensile Elongation @ Break	%	>500	ASTM D 638
Flexural Strength	MPa	26	ASTM D 790
Flexural Modulus	MPa	1050	ASTM D 790
Izod Impact	kJ/m	300	ASTM D 256
Hardness (Shore D)		63	ASTM D 2240
ESCR (10% Igepa), F ₁₀ *	Hrs	>1200	ASTM D 1693B
ESCR (10% Igepa), F ₅₀ *	Hrs	720	ASTM D 1693B
Thermal Properties			
Vicat Softening Point	°C	125	ASTM D 1525
Brittleness Temperature	°C	< -75	ASTM D 746

(1) Typical values; not to be construed as specification limits.

(2) Based on Compression molded sheet

Processing Conditions

Typical processing conditions for BM1052 are:

Barrel temperature: 200 - 250°C

Melt temperature: 200 - 230°C

072011

Food Regulation

BM1052 grade is not intended for Food contact application. Detailed information is provided in relevant Material Safety Datasheet and for additional specific information please contact SABIC local representative for certificate.

Storage and Handling

Polyethylene material should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably don't exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PE resin within 6 months after delivery.

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Technical Marketing

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NOTICE: The information and data contained herein are believed to be correct and given in good faith, but because of the many particular factors which are outside our knowledge and control and affect the use of product, no warranty is given or is to be implied with respect to such information, nor do we offer any immunity against infringement.