

MSDS for #5704, 5705, 5706, 5707, 5708, 5709 Pressure Seal Vials



**POLYETHYLENE
DATA SHEET**

Marlex[®] HHM 5502 BN

High Density Ethylene Hexene Copolymer

CUSTOMER BENEFITS

This resin allows the blow molder to reduce inventory of resin types, because it can be used to package bleach and most detergents.

Compare this with other blow molding or thermoforming resins of the same stiffness...

- Excellent stiffness
- Exceptional stress cracking resistance

SUGGESTED APPLICATIONS

Bottles for...

- Bleach and detergents
- Industrial chemicals
- Industrial parts
- Pharmaceuticals

PROCESSING RECOMMENDATIONS

Maintain these conditions for optimum part quality...

- Blow Molding Stock Temperature:
340-400°F (171-204°C)
- Extrusion Melt Temperature
380-450°F (194-216°C)
- Thermoforming Surface Temperature:
340-360°F (171-182°C)

SPECIFICATION DATA

Meets these requirements...

- ASTM D4976 - PE 235
- FDA Regulation 177.1520. Suitable for food packaging.
- Listed in Drug Master File

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Nominal Physical Properties of Marlex® HHM 5502 BN

PROPERTY*	TEST METHOD	ENGLISH		SI	
		Unit	Value	Unit	Value
Density	D1505	lbs/ft ³	60	g/cc	0.955
Melt Index, Condition 190/2.16	D1238	g/10 min.	0.35	g/10 min.	0.35
ESCR, Condition A, F ₅₀ } 100% Igepal)CO-630 Condition B, F ₅₀ } 100% Igepal)CO-630	D1693	h	45	h	45
			35		35
Tensile Yield Strength, 2" (50 mm) per min.	D638 Type IV	psi	4000	MPa	28
Ultimate Elongation 2" (50 mm) per min.	D638 Type IV	%	>600	%	>600
Brittleness Temperature	D746	°F	< -94	°C	< -70
Flexural Modulus	D790	psi	200,000	MPa	1378
Bottles					
Bottles Environmental Stress Cracking Resistance, 140°F (60°C), F ₅₀ **		h	250	h	250
Thermoforming					
Sheet Sag***		in	7-9	cm	18-23

* Physical properties reported herein were determined on compression molded specimens prepared in accordance with Procedure C of ASTM D1928.

** Test Conditions: 10 ounce, 23-gram bottle, 10% fill, Joy Dishwashing Liquid.

*** 2 ft. X 4 ft. x 125 mil (0.61m x 1.22m x 3.2mm) thick blank heated to forming temperature.

THE NOMINAL PROPERTIES REPORTED HEREIN ARE TYPICAL OF THE PRODUCT BUT DO NOT REFLECT NORMAL TESTING VARIANCE AND THEREFORE SHOULD NOT BE USED FOR SPECIFICATION PURPOSES.

May 2001

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PAXON™

High Density Polyethylene

AM55-003 Blow Molding Resin

Description

AM55-003 is a blow molding grade high density polyethylene copolymer containing an excellent antistat additive. It provides a good combination of stiffness and stress crack resistance.

Applications

- > Household and Industrial chemical containers
- > Food packaging
- > Pharmaceutical packaging

Properties	ASTM Method	Nominal Value ¹	
		Units (English)	Units (SI)
Classification			
Group	D-4976		2
Class	D-4976		3
Grade	D-4976		5
Melt Index, 190/2.16	D-1238	0.3 g/10 min	0.3 g/10 min
Density	D-4883	59.6 lbs/ft ³	0.954 g/cm ³
Mechanical (23°C, 50% relative humidity, unless otherwise noted)			
Tensile Strength at Yield	D-638	4,000 psi	28 MPa
Tensile Strength at Break	D-638	2,100 psi	14 MPa
Elongation at Yield (%)	D-638	8.0	8.0
Elongation at Break (%)	D-638	560	560
Tensile Modulus of Elasticity	D-638	290,000 psi	2,000 MPa
Flexural Modulus ²	D-790	190,000 psi	1,310 MPa
Tensile Impact	D-1822	90 ft lbs/in ²	19 joules/cm ²
Impact Brittleness Temperature	D-746	<-105°F	<-76°C
Environmental Stress Crack Resistance ³	D-1693	25 hrs	25 hrs
Thermal			
Vicat Softening Temperature	D-1525	260°F	127°C
Heat Deflection Temperature, 66 psi load	D-648	165°F	74°C
Coefficient of Linear Thermal Expansion	D-696	6x10 ⁻⁵ in/in/°F	1.1x10 ⁻⁴ cm/cm/°C
Processing			
Typical Melt Temperature		375°F	191°C

1. Values are typical and should not be interpreted as specifications.
2. Method 1, Procedure A (1"x3"x0.125"), Tangent calculation.
3. Condition B, 100% Igepal.

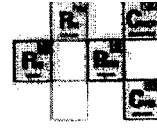
FDA Status:

This resin meets all the requirements of the FDA for olefin polymers to be used as articles or components of articles for contact with food as set forth in 21 CFR 177.1520 (c) 3.1, 3.2a, for food types identified in 21 CFR 176.170 (c), Table 1, under types I, IV-B, and VIII, under the condition of use E through G described in Table 2 of 21 CFR 176.170 such foods have a pH above 5.0.

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11418-F White HDPE MB

Product Information

Carrier Resin

Type	LLD/HD	PE
Melt Index	13	(nominal) ASTM D1238, 190 / 2.16
Density	.960	gm/cc

Concentrate

Specific Gravity	1.54	(nominal)
Melt Index	7-17	(nominal) ASTM D1238, 190 / 2.16
Pigment	50%	TiO2

Food Contact

Ingredients in product 11418-F are acceptable under paragraph's 174.5, 177.1520(c)2.2 and (c)3.1A, 178.2010 and 178.3297 of the Title 21 of the Code of Federal Regulations.

CONEG

This product complies with all applicable CONEG heavy metal restrictions.

The amount of masterbatch depends on the performance requirements of the final application. This product is primarily designed for blown film applications.

Date Printed: 3/30/2004

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PolyOne

PolyOne Corporation Technical Center
2900 Shawnee Industrial Way • Suwanee, GA 30024

DATA SHEET

OWENS-ILLINOIS

Effective Date: 04/02/2002

PolyOne Corporation Product No: CC00017125WE

Color Description: 74546TMB White w/ Zinc

Carrier Resin: LLDPE

Carrier Flow Melt: 20 g/10 min

Pigment Loading: 50.0%

Special Additives: Zinc Stearate 4.4%

Letdown Ratio: 3/100

Specific Gravity: 1.1 to 1.3

Form: Pellet

Bulk Density: 60 to 65 lbs/cu ft

Color Tolerance: dE < 2.0

CONEG Metals: None (combined total <100 ppm)

FDA COMPLIANCE: This product meets FDA requirements for food contact applications as listed in 21 CFR Parts 177.1520, 178.3297, and 182.8994.

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