



PRODUCT DATA SHEET

ECOPLUS™ 105

High Density Degradable Polyethylene

ECOPLUS™ 105 Degradable Polyethylene is a natural high density degradable polyethylene which is suitable for extrusion of a wide variety of film application.

ECOPLUS™ 105 Degradable Polyethylene is based on high density copolymer and it is supplied in pellet form

Recommended Applications include:

- Carrier bags
- Thin counter bags
- Garbage liner

Physical Properties

Properties	Typical Value	Units	Test Method
Melt Flow Rate: (2.16 kg load)	0.08	g/10 min	ISO 1133 - 1981: Condition 4
: (21.6 kg load)	9	g/10 min	ISO 1133 - 1981: Condition 7
Density (annealed)	950	kg/m ³	ISO 1872/1 - 1986

Film*				
Dart Impact Strength		>150	g	ISO 7765 - 1: 1998 (E)
Tensile Stress at Break	MD	73	MPa	ISO 1184 - 1983
	TD	48	MPa	
Tensile Stress at Yield	MD	40	MPa	ISO 1184 - 1983
	TD	27	MPa	
Elongation at Break	MD	527	%	ISO 1184 - 1983
	TD	987	%	
Elmendorf Tear Strength	MD		g/25microns	ISO 6383/2 - 1983
	TD		g/25microns	
Degradation Under Accelerated Weathering		750	hrs	ASTM D2565: 1999 Cycle 1
Overall Migration		<1	mg/dm ²	EN 1186 Part 3 (3% Acetic Acid, 10% Ethanol, olive oil)

MD = Machine Direction

TD = Transverse Direction

*15 microns film extruded at 20 Kg/hr from a 60mmX1.2mm die, using a blow ratio of 4:1 and a neck height of 8D. The property values shown are typical values obtained by averaging a number of test results. Small divergences from the quoted values may occur with film extrusion conditions and testing method.

Processing Condition Guide: The actual temperature setting will vary with machine, die design etc. Generally, melt temperature 200-230°C should be obtained. Screen pack; 40/80 mesh is suggested

IMPORTANT NOTICE :

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Version No: PPTC/ECOPLUS 105

ECOPLUS AND THE ENVIRONMENT

ECOPLUS™ degrade when subjected to sunlight, UV, heat and mechanical stress.

ECOPLUS™ Polymers, as supplied, can be degraded when disposed in landfill without detriment to the environment.

In landfill sites, **ECOPLUS™** polymers do not degrade to produce voids, and do not emit dangerous degradation gases or contribute to groundwater pollution.

ECOPLUS™ polymers, as manufactured, comply with the limits for heavy metals (100 ppm total of lead, cadmium, mercury and hexavalent chromium) in packaging materials as defined in the European Union Directive 04/62/EC on packaging and packaging waste and the corresponding US CONEG cases.

If pigment or other additives are incorporated into the **ECOPLUS™** Polymers at the processing stage the above statement may not be fully valid and MITCO will be pleased to offer advice on specific cases.

HANDLING AND USE IN INDUSTRY

A separate MITCO Product Information Sheet entitle “Storing and Extrusion Guide for “**ECOPLUS™**”, is available and should be consulted before handling and use of **ECOPLUS™** Polyethylene.

FOODSTUFFS CONTACT AND TOY APPLICATIONS

Where **ECOPLUS™** materials are likely to come into contact with foodstuffs, directly or indirectly, or are used in the manufacture of toys, prior written clearance for these applications should be obtained from MITCO. No liability can be accepted for any damage, loss or injury arising out of failure to obtain such clearance or failure to observe any recommendations given.

Further Information is available from:

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