

MEDEX

International

Division Polyéthylène

PRODUCT INFORMATION NOTICE

Film extrusion materials

UNION CARBIDE CORPORATION CHEMICAL AND PLASTICS INTERNATIONAL DEPARTMENT

Polyethylene Film Extrusion Resin DFD-0115 Natural 7

DESCRIPTION

UNION CARBIDE® DFD-0115 Natural 7 is a low density polyethylene homopolymer for the extrusion of medium-to high-clarity packaging films. It contains slip, antioxidant, and antiblocking agents and is intended for film fabrication by the tubular process. Films produced from UNION CARBIDE® DFD-0115 Natural 7 are heat-sealable over a broad range of temperatures. Typical properties are shown in table 1.

APPLICATIONS

UNION CARBIDE® DFD-0115 Natural 7 is recommended for making film for general use where a non-blocking high-slip film is required. This included soft goods packaging, bakery bags, aprons and others in all food contact applications except those involving holding food during cooking.

STATUS

UNION CARBIDE® DFD-0115 Natural 7 complies with FDA Food Additive Regulation 177.1520 formerly 121.2501

EXTRUSION CONDITIONS

UNION CARBIDE® DFD-0115 Natural 7 possesses excellent extrudability. Recommended minimum gauge is 0.75 mil (19 microns); however, lower gauges have been obtained with some equipment. Recommended minimum stock temperature is 335° F. (168° C.).

TEST METHODS

Designated tests are made in accordance with current issues of the ASTM Standards testing methods. These are available from the American Society for Testing and Materials, Philadelphia, Pennsylvania 19103.

F.46682A 1/97 - 4M .

TABLE 1

Property	Test Method	Typical Value
Resin Properties		
Density at 23° C g/cm ³	D 1505	0.922
Melt index at 190° C g/10 minutes	D 1238	2.5
Secant Modulus at 1% Elongation, plaque, psi (Kg/cm ²)	D 638	30,000 (2,109)
Apparent Density, lb/Ft ³ (g/cm ³)	D 1895	33 (0.53)
Rod Shaped Pellets, size, inch	-	1/8 x 1/8
Slip(a) Additive level	-	3
Anti-block(b) Additive Level	-	1
Film Properties © (1.5-mil tubular)		
Dart Drop Impact, F50,g	D 1709 Method A	80
Tensile Strength, psi. (kg/cm ²)	D 882	
Machine Direction (MD)		2,700 (190)
Transverse Direction (TD)		2,500 (175)
Elongation, %	D 882	
Machine Direction (MD)		250
Transverse Direction (TD)		500
Coefficient of friction, measured		
24 hours after extrusion	D 2103	Type 1 (high Slip)
Haze, %	D 1003	7
Gloss, Gardner Glossmeter	D 523	
60° Polished Background		125
45° Dull Background		60

(a) 0 = none; 4 = highest

(b) 0 = none; 3 = highest

(c) Film properties are typical of blown film extruded at 2:1 blow-up ratio and melt temperature of 335° F (168° C)